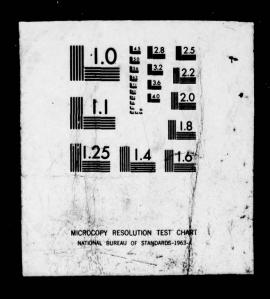


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QUALIFICATION STANDARDS FOR PERSONNEL RESPONSIBLE FOR HAZARDOUS OR NOXIOUS CHEMICALS IN BULK

APPENDIX J:

FJA TASK STATEMENTS OF PERSONNEL HANDLING AMBIENT PRESSURE-AMBIENT TEMPERATURE HAZARDOUS CHEMICAL CARGO ON A TANKSHIP



BY: Paul A. Martino

MAY 1976

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Present for

DEPARTMENT OF TRANSPORTATION. UNITED STATES EGAST GUARD

Office of Research and Buvelepaton Weshington, D.C. 20390

octation in the interest of information exchange. The United State Carrier Comment of Managery Car September 1997 (1997) The United States Covernment Com and andress produces to mainfacturers.

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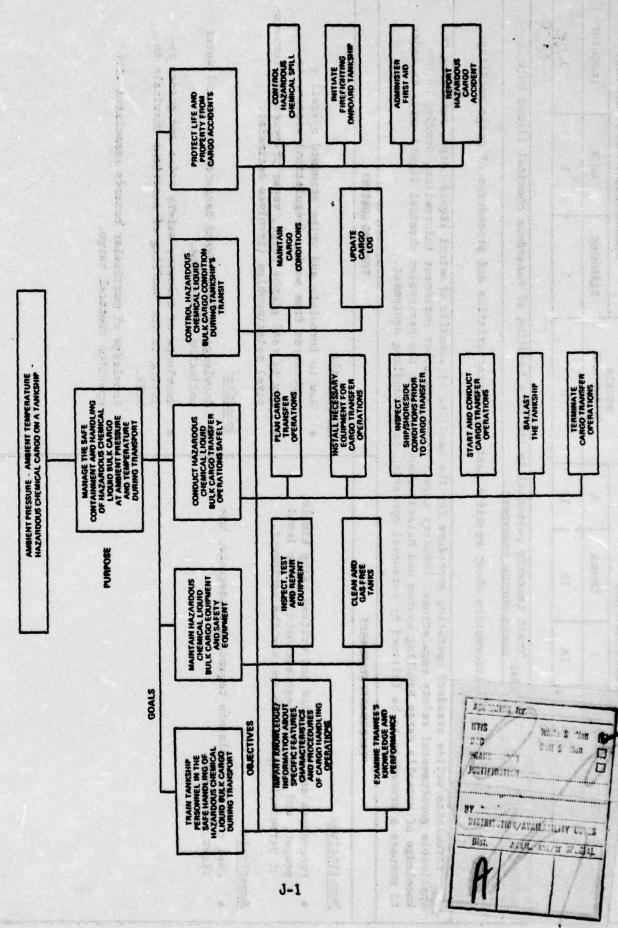
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in	Qualification Standards Responsible for Hazardou	for Personnel (1)	May 176	on Code
	Chemicals in Bulk, Volume	e II. Appendix J.	Performing Organizati	on Republic
	Paul A./Martino	ing Ambient Pressure- nt Temperature Hazardous	Technical Repo	
•	9. Performing Organization Name and Chemi Operations Research, Inc.		0. Work Unit No. (TRAI	
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	porting bulk hazardous a to qualifications and tr ships and tank barges fo pressure-ambient tempera discussed are initial pe time frame for renewal a a data bank of tasks per cargo (bound separately curriculum guideline was	alysis of personnel tasks on nd noxious chemicals. The reaining of chemical handling processor two cargo containment systeture, and high pressure-ambies reannel certification, renewand retraining. One of the reformed by marine personnel has Appendices J and K). In a developed that may be useful program for marine chemical h	ecommendations personnel aboar ms (i.e., ambi ent temperature al of certifica esults of this andling bulk ch ddition, an ed to anyone int	relate d tank- ent-). Topics tion, study is emical ucational erested
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	WORKER	MORKER FUNCTION LEVEL AND ORIENTATION	L AND ORIEN	ITATION		askaom	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	×	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
5.4	80	10	A1	1A	10	\$	\$	3	2

						Section 15 to 1	1000		Contract of the Contract of th					
TARK CODE	Tr. Tr	ain tank	ship i	ersonnel	in t	he sa	fe ha	ndling	Jo	n tankship personnel in the safe handling of hazardous chemical liquid bulk	chemical	liquic	1 bulk	
I.A.I	BONL: CA	roo duri	during transpor	nanort.										

Impart knowledge/information about specific features, characteristics and procedures of cargo handling during transport. OLUECTIVE:

APPLICABLE governmental safety regulations, industry safety codes, and other pertinent information, drawing on own applicable governmental safety regulations, industry safety codes, and other particular chemical liquid cargo in order knowledge of vessel's cargo handling system and hazards associated with the particular chemical liquid cargo in order Formulates/writes standard operating procedure for the handling of specific chemical liquid cargo, referring to to prepare a procedure to be followed by personnel operating cargo handling equipment.

	Functional:		Descriptive:
I KAINING CONTENT		PERFORMANCE STANDARDS	
TOTAL CONTRACT			

Descriptive: Procedures are formulated and written using simple, proper, and clear language adequate for the level of personnel expected to operate the equipment.

Numerical: • Less than XX complaints regarding inadequate, unclear procedures.

• How to read graphs (e.g., vapor pressure vs. temperature) relationships (involves decimals). Specific:

How to formulate and write standard operating procedures from policy (regulation) statements.

Knowledge of Coast Guard dangerous cargo and water pollution regulations. Knowledge of industry safety codes and guides re-

lating to the handling of hazardous chemicals in

 Knowledge of particular hazards associated with specific chemical cargo.

TASK CODE:	I.A.2				•				-
	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	EL AND ORIENT	ATION		WOOKED	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	/ELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
5.8	80	18	10	1.4	10		2	3	\$
TASK CODE:	I.A.2		GOAL: Cargo	Train tankship personno GOAL: cargo during transport	sonnel in	Train tankship personnel in the safe handling of cargo during transport.	of hazardous c	hazardous chemical liquid bulk	rd bulk
OBJECTIVE:	Impart operation	<pre>Impart knowledge/information operations during transport.</pre>	nformation transport.	about	specific features,	es, characteristic	characteristics, and procedures of cargo handling	res of cargo l	handling
TASK: Protecti tent and pre involved in ment, first	lates/wr ction equ present in the opensity	Formulates/writes learning objectives, t protection equipment) lesson plans and e tent and present knowledge, attitudes, and s involved in the operation of cargo handling ment, first aid equipment procedures, and ha	ng objectives sson plans attitudes, cargo han	ves, training and evaluati and skills o dling equipme and hazards a	training activities evaluation methods iskills of trainees, equipment, firefigiazards associated wi	(fire drills, for a particula in order to to tring and safet the chemical 1:	first aid simulations, ar lesson based on assignach cargo handling perity equipment, personnel quid bulk cargo.	itions, wearing assigned to the personnel sonnel protection.	wearing personnel med training con- sonnel safety aspects protection equip-
		PERFORMANC	PERFORMANCE STANDARDS				TRAINING CONTENT	NTENT	
Descriptive:	Selection and	Says Assista	10 Table 10	9928CTT 942		Functional:			
• Plans a prehens trainin	Plans and arran prehensively, a training needs.	Plans and arrangements are thought prehensively, and are relevant and training needs.	thought or	Plans and arrangements are thought out clearly, conprehensively, and are relevant and consistent with training needs.	com- ith	How to formul learning obje Knowledge of	How to formulate and finalize training plans stressing learning objectives and evaluations. Knowledge of learning activities which are effective	se training pluations.	lans stressin re effective
Numerical:		\$255.0385.0395.039				for teaching	the kinds of training content needed.	raining conter	nt needed.
• Less th	an XZ contion/exp	Less than X% complaints reinformation/explanation.	garding in	Less than XX complaints regarding inadequate/insufficient information/explanation.	ifficient	Spec	<pre>ific: Knowledge of local format for developing training plans.</pre>	or developing	training pl
• Less th	an XX co	Less than XX complaints regarding relevance mation.	garding re	#	infor-	• Knowledge of cargo handlin safety equipment, use of and hazards	Knowledge of desired training content (operation of cargo handling equipment, use of firefighting and safety equipment, use of personnel protection equipment, use of first-aid equipment and procedures, and hazards associated with chemical liquid bulk cargo).	se of firefigies of firefigies of firefigies of firefigies of the firefigies of the firefigies of the firefigies of the firefical figures of the firefigies	(operation of ighting and tection equip- vrocedures, iquid bulk car
The Action			100		A Control of	• Knowledge of trainees.	Knowledge of present skill levels and attitudes of trainees.	levels and at	titudes of
						• Knowledge of cargo gages, charts with	Knowledge of cargo handling equipment, gages, charts with decimal readings.		including
AT ALL		PARTIES TO				1967 19 U.S. 1988			
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	WORKER	WORKER FUNCTION LEVEL AND ORIENTATI	AND ORIENT	ATION		MORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
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	in tankship personnel in the safe handling of hazardous chemical liquid bulk	
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Impart knowledge/information about specific features, characteristics, and procedures of cargo handling operations during transport. OBJECTIVE:

Gives information and ideas based upon personal experience and training, to define and clarify duties of cargo TASK: GIVES INICIDATION ONLY AND ACCOUNTENT AND METHODS OF TRAINING to Instructors.

PERFORMANCE STANDARDS	TRAINING CONTENT	
Descriptive:	Functional:	

Presentation is clear, accurate, comprehensive.

How to describe and relate experience in relation

to problem to a specific audience.

Specific:

Worker is open, perceptive, and respects and acknowledges other viewpoints.

Numerical:

- * XX of listeners report consultation had advanced their understanding and was useful.
- XX of ideas and information is reflected in instructions to personnel.

Knowledge of hazards associated with chemical liquid bulk cargo.

sonnel).

Knowledge of scope and focus of the specific training program (1.e., program for cargo handling per-

handling personnel, including interpretation of

decimal readings on gages.

Knowledge of duties, responsibilities of cargo

Knowledge of behavior in connection with chemical cargo handling, e.g., danger of toxic vapors, seed for adequate oxygen and wearing of appropriate protective gear.

	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	AND ORIEN	TATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
7	35	48	09	₹1	5	\$ ***	\$	3	7

GOAL: Train tankship personnel in the safe handling of hazardous chemical liquid bulk cargo during transport.	
I.A.4 GOAL: Train tar	
TASK CODE:	OBJECTIVE:

Impart knowledge/information about specific features, characteristics, and procedures of cargo handling

operations during transport.

TASK: Shows/demonstrates/presents incommand recourse to responses of trainees, in order to increase particular knowledge and skill of trainees. Shows/demonstrates/presents informal lecture to chemical cargo handling personnel, leads discussion on key con-

TRAINING CÔNTENT	Functional:
PERFORMANCE STANDARDS	Descriptive: afterment of the particle of

How to present material in lecture and for discus-

How to involve trainees in discussion and elicit

Presentation content is clear, orderly, and accurate. questions and answers questions clearly and to the Sets climate in which trainees feel free to ask

Teaching method holds attention of trainees.

Numerical:

- XX key points in explanation are omitted or distorted. In review of lesson plan and content, no more than
- No more than X% of trainees complain that explanations were unclear.

Specific:

questions.

sion.

- Knowledge of skill levels, capabilities, interests of trainees.
- and ballast handling equipment and operations, safety and firefighting equipment, personnel protection Knowledge of specific content related to cargo equipment, first aid equipment and procedures.
 - Knowledge of potential hazards involved in handling the specific chemical liquid cargo.

	WORKER	WORKER FUNCTION LEVEL AND ORIENTATI	. AND ORIENT	TATION		03/100m	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
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	TASK CODE:

Impart knowledge/information about specific features, characteristics, and procedures of cargo handling operations during transport. OBJECTIVE:

TASK: Provides on-the-job training (OJT) throughout voyage, following standard operating procedure and using discretion within guidelines of union contract terms, company policy, regulations and personnel's interest in developing skills above minimum

PERFORMANCE STANDARDS	TRAINING CON
Descriptive:	Functional:
. Sensitive to personnel's work-related needs, interests.	. Knowledge of ship systems,
. Clear and accurate in demonstrations. explanations.	responsibilities.

Sensible in selecting time, place for on-the-job

training so as not to disrupt operations.

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All departures from standards of personnel performance are noted.

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Specific cargo handling systems, functions, operations, procedures on vessel.

On-the-job training, hands-on demonstration techniques

Documentation available to assist in task learning

performance.

Specific:

E.

functions, and personnel

NTENT

Specific personnel responsibilities, capabilities, experience.

- Union contract terms
- Company policy.
- Documentation available aboard vessel to assist in task learning and performance.

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		T A A	IASK CODE: 1.A.O	
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TASK COL

Impart knowledge/information about specific features, characteristics, and procedures of cargo handling operations during transport. OBJECTIVE:

Orders, posts, and/or maintains in specified location(s) on vessel standard sources of information (cargo informagovernment regulations about required material, using discretion about methods and timing of checks and maintenance, tion cards, equipment diagrams, standing orders, operations and safety manuals), following vessel, company and in order to ensure that the information is available when needed. TASK:

PERFORMANCE STANDARDS

Descriptive:

- Standard information is posted, stowed, updated, and replaced promptly and accurately.
- Availability and condition of information sources is checked thoroughly on a regular basis.

Numerical:

- All prescribed information is in designated location or known status whenever needed.
- Changes are made within X hr of notification or, if critical, immediately upon notification.
- Replacements are ordered as soon as known to be required and in place within X hr of receipt.

TRAINING CONTENT

Functional:

- How to obtain and distribute standard shipboard information sources.
- Functions for which different sources are used.
- Procedures for ordering, updating, and replacing documents.
- Information may contain decimals.

Specific:

- Information sources required, used aboard vessel.
- Locations for various types of information.
- Vessel procedures for information acquisition and access control.
- Particular training aids furnished aboard vessel.

	WORKER	WORKER FUNCTION LEVEL AND ORIENTATIC	AND ORIEN	FATION		MODICE	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	×	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
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Al: Train tankship personnel in the safe handling of hazardous chemical liquid bulk cargo during transport.
ISK CODE: I.A.7

OBJECTIVE:

Impart knowledge/acquire information about specific features, characteristics, and procedures of cargo handling operations during transport. TASK: Walks personnel through vessel, explains layout and special equipment and demonstrates operations particular to specific job, using operations and safety manuals, check lists, and other available aids, and discretion concerning how detailed orientation/indoctrination should be, in order to orient personnel to vessel and procedures.

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
 Indoctrination to vessel is conducted clearly, thoroughly, and efficiently. 	• Knowledge of vessel systems, functions, operations, and personnel responsibilities.
Numerical:	Teaching and demonstration skills.
• XX of personnel state they feel satisfied with indoctrination.	• Importance of thorough indoctrination to vessel.
• All prescribed resource material is identified.	Specific: • Specific vessel cargo handling systems, functions, operations, and procedures.
	• Specific personnel responsibilities, knowledge, and experience.
	Documentation available aboard vessel to assist in
	task performance.
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FASK CODE: I.B.1	I.B.1								
	WORKER	JORKER FUNCTION LEVEL AND ORIENTATION	AND ORIENT	FATION		WOOKE	GENERA	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
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	ain tankship personnel in the safe handling of hazardous chemical liquid bulk.	duz	
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OBJECTIVE:

Examine/evaluate/observe trainee's knowledge and performance on site.

to examine trainee's knowledge of the operation of cargo handling equipment, the use of safety and firefighting equipment, ment, personnel protection equipment, and first aid equipment and procedures. Asks/reads test questions to cargo handling trainee, explains meaning of items, encourages trainee, in order

TRAINING CONTENT	
PERFORMANCE STANDARDS	

Functional:

thorough. Test is administered uniformly and fairly.

Questions, explanations are clear, concise and

Numerical:

Less than X% complaints regarding unclear explanations provided, or unfair treatment.

· Familiarity with questionnaire.

How to communicate in language trainee will

understand.

Specific:

Knowledge of information required (i.e., operation of cargo handling equipment, the use of firefighting and safety equipment, personnel protection equipment, first aid equipment and procedures).

Descriptive:

TASK CODE:	1.8.2	.2							
	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	TEL AND ORIEN	TATION		as Nove	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	%	THINGS	%	INSTRUCTIONS	REASONING	MATH	LANGUAGE
4	30	5	65	18	2	4	7	3	7
TASK CODE:	I.B.2	2	GOAL: carg	Train tankship personne cargo during transport.	ersonnel nsport.	Train tankship personnel in the safe handling of hazardous chemical liquid bulk cargo during transport.	g of hazardous	chemical Iiq	uid bulk,
OBJECTIVE:	Examin	e/evaluate/	observe tr	ainee's know	ledge and	Examine/evaluate/observe trainee's knowledge and performance om site.	ė		
TASK: Interviews/evaluates n regulations, and accepted ance monitoring, relevant	views/evans, and a	Interviews/evaluates new personnel lations, and accepted practice, in monitoring, relevant to vessel open	ew personnel practice, in to vessel op	using own order to f erating req	udgment w nd out th irements.	judgment within guidelines of company policy, ind out their needs for orientation, specific puirements.	company policy, tation, specific		union contract terms, training, and perform-
		PERFORMAN	PERFORMANCE STANDARDS				TRAINING CONTENT	NTENT	
Descriptive:	ve:			2000		Functional:			
• Perso visio accur	Personnel need vision are detaction are detactions.	Personnel needs for orientation, vision are determined promptly, accurately.	entation, tomptly, th	Personnel needs for orientation, training, and supervision are determined promptly, thoroughly, and accurately.	super-	• Responsibilities and general conteresponsibilities.	Responsibilities prescribed for personnel and general content of tasks that go with responsibilities.	ed for personsks that go w	nel categories ith those
• Effec	tive com	Effective communication is established	is establi	shed.		• Informal in	Informal interview procedure.	ıre.	
Numerical:	.					Specific:			
• Deter	Determination unberthing.	Determination is made X $hr/days$ before unberthing.	hr/days be	fore (after)		Vessel and equipment Safety features and	equipment design and ures and procedures.	gn and operatiures.	and equipment design and operating procedures.
• Spect	Specific know	ledge and s	skills of a	Specific knowledge and skills of all personnel evaluated.	are	Company policy.	icy.		
FIRSCIA		Service of the servic				Location and p other records.	Location and procedures for maintaining logs and other records.	or maintainin	g logs and
語の一種で						• Content of manuals a used onboard vessel.	Content of manuals and other information sources used onboard vessel.	ner informati	on sources
25.									
27/1/2						Ballon Control			

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	Maintain hazardous chemical liquid bulk cargo equipment and safety equipment.
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OBJECTIVE:

Inspect, test and repair equipment.

on own knowledge of vessel's equipment, availability of personnel and review of records in order to ensure cargo Formulates inspection and maintenance schedules and check lists of cargo handling and safety equipment, drawing and safety equipment are properly maintained.

TRAINING CONTENT PERFORMANCE STANDARDS

Descriptive:

- Plan adequately reflects inspection and maintenance
- Inspections are carefully planned to check equipment regularly and frequently.
- Appearance and operating condition of vessel and equipment are well maintained.

Numerical:

- Maintenance needs are always known.
- Maintenance records are always up-to-date.
- Inspections are performed every X days.
- The schedule is reviewed and revised as required X hours after each check.

Routine inspection and maintenance requirements for cargo handling equipment. Functional:

- Special maintenance that can be performed at sea. Types and effects of material degradation and
 - equipment failure (general knowledge).
- Safety regulations pertinent to inspection and maintenance.

Specific:

(All of functional content applied to specific vessel.)

BK CODE:	TASK CODE: II.A.2								
	WORKER	WORKER FUNCTION LEVEL AND ORIENTATI	AND ORIENT	TATION		09.400	GENERAL	GENERAL EDUCATIONAL DEVELOPMEN	VELOPMENT
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1	itain hazardous chemical liquid bulk cargo equipment and safety equipment.
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	ASK COD
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OLUECTIVE:

Inspect, test and repair equipment.

TASK: Assigns personnel to perform inspection and maintenance of cargo handling and containment equipment and materials, describing equipment and materials, criticality of defects, types of work required, availability of tools and materials, and using discretion within the limits of authority, union contract terms, company policy and regulations, in order to carry out inspection and maintenance schedule.

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
Assigns sufficient number of personnel.	• Routine inspection and maintenance requirements for
• Communicates task details clearly.	cargo handling equipment.
• Ensures that workload is reasonable for personnel.	Special maintenance that can be performed at sea.
	Types and effects of material degradation and equipment failure (general knowledge).
• In all cases there is sufficient number of people to perform inspection and maintenance.	Personnel responsibilities for inspection and maintenance.
	• Safety regulations pertinent to inspection and meintenance.
TO THE STATE OF THE PART OF TH	• How to assign sufficient number of persons to different types of inspection and maintenance.
APPEND THE BOOK OF THE PARTY OF	Specific:
	• (All of functional content applied to specific vessel.)
	Specific personnel capabilities.
	CONTRACTOR
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	TASK CODE:	II.A.3								
		WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	L AND ORIEN	TATION		WORKER	GENERAI	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
	DATA	×	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	TANGUAGE
	38	30	44	09	VI	10	7	4	3	4
	TASK CODE:	II.A.3		GOAL: Maintain		us chemica	hazardous chemical liquid bulk cargo equipment and safety equipment.	go equipment and	safety equip	pment.
	OLUECTIVE:	Inspe	Inspect, test and repair equipment.	d repair	equipment.					127 127 137 137 147 147 147
	TASK: Report Last via the coard operate operat	rts/descr pumps, f ompany re ting proc	Reports/describes faulty operation of last pumps, firefighting equipment, pevia the company representative (e.g., Port and operating procedure, in order to arrang proper operation according to manufacturer'	operation equipment e (e.g., rder to an	n of cargo t. t, personnel Port Engineerrange for a	cargo transfer sursonnel protectiv Engineer), using e for a technical s specifications.	Reports/describes faulty operation of cargo transfer subsystem equipment and safety equipment (e.g., cargo and ballast pumps, firefighting equipment, personnel protective equipment, etc.), directly to equipment manufacturer or via the company representative (e.g., Port Engineer), using telephone, ship's radio, mail system, etc., following standard operating procedure, in order to arrange for a technical representative to visit vessel and restore equipment to its proper operation according to manufacturer's specifications.	it and safety equipment (e.g., cargo are.), directly to equipment manufacturers s radio, mail system, etc., following to visit vessel and restore equipment	ipment (e.g., equipment manustem, etc., for and restore e	cargo and bal- ifacturer or illowing stand- quipment to its
			PERFORMANC	PERFORMANCE STANDARDS	3h			TRAINING CONTENT	DNTENT	
	Descriptive:	ëi					Functional:	ist angles by he		Access Market of
	• Conve	ys infor	mation accur	rately and	Conveys information accurately and completely.		How to exp representations	How to explain technical information to manufacturer's representative or company's Port Engineer.	information t's Port Engin	o manufacture eer.
	• Prese	ntation	Presentation is clear and concise.	d concise.			How to reasoned.	How to read and understand equipment manufacturer's specifications and instructions.	d equipment m	anufacturer's
-	Numerical:						Specific:			
-	• Over cause incom	Over a period cause reports incomplete.	Over a period of time, less than XX concause reports are vague, inaccurate, milncomplete.	ass than X inaccurat	Over a period of time, less than XX complaints be- cause reports are vague, inaccurate, misleading or incomplete.	B or	• Knowledge of e Port Engineer.	of equipment ma	equipment manufacturer's and company's	and company'
							• Knowledge	Knowledge of vessel's faulty equipment.	Ity equipment	•
	CANADA CO		100 T. 100 T. 100				Knowledge of vement operation.	Knowledge of vessel's cargo handling subsystem equipment operation.	go handling s	ubsystem equ
	Todal Strike	tte i		200			A D C C C C C C C C C C C C C C C C C C	So editoria	A STATE OF THE STATE OF	
			25							
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TASK CODE: II.A.4	11.A.4								
	WORKER	WORKER FUNCTION LEVEL AND ORIENTATIO	L AND ORIEN	TATION		BENBUM	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	90	2	07	1A	10	7	4	3	7
THE RESIDENCE OF THE PARTY OF T									

Inspect, test and repair equipment. OBJECTIVE:

ing standard operating procedure and manufacturer's instructions, in order to restore equipment to its proper operation MAKE. Replaces/repairs defective parts to equipment of cargo transfer subsystems (e.g., liquid level gages, valves, pres sure relief devices, flanges, gaskets, cargo hose, etc.), calling upon engineering department for assistance, followaccording to manufacturer's specifications.

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	* Functional:
 Repairs or replaces defective parts accurately and within specified tolerances. 	. How to read and follow standard operating pro and equipment manufacturer's instructions.

ocedure

- within specified tolerances.
- Communicates effectively with personnel.

Numerical:

- chemical cargo is dependent upon the defective part, In all cases where safe containment of the hazardous repairs are made to the equipment to specification.
- Less than XX complaints that communication is unclear or ineffective.

Knowledge of vessel's cargo handling subsystem equiplevel gages, cargo valves, cargo hoses, flanges, ment operation (pressure relief devices, liquid gaskets, etc.). Specific:

General knowledge of operating principles of cargo

handling subsystem equipment.

How to repair/replace defective parts to equipment

aboard vessels.

Knowledge of specific equipment's manufacturer's instructions and standard operating procedures.

	WORKER	FUNCTION LEV	WORKER FUNCTION LEVEL AND ORIENTATION	TATION			GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	*	THINGS	×	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	55	14	5	2.4	07	3	3	1	7
TASK CODE:	II.A.5		GOAL: Main	Maintain hazardous	us chemical	al liquid bulk cargo	go equipment and	safety	equipment.
OBJECTIVE:	Inspect,	test and	Inspect, test and repair equipment	pment.					
TASK: Test alar the vesse	s fire de ms in ord 1/technic	ASK: Tests fire detection an alarms in order to ascerthe vessel/technical manual.	Tests fire detection and alarm system's alarms in order to ascertain that fire essel/technical manual.	item's light/ fire detecti	temperatu	light/temperature/smoke sensing devices and indicators, and audio/vism detection and alarm system is operating within the limits specified in	evices and indi- ating within th	cators, and a	and audio/visual s specified in
-	100000	PERFORMAN	PERFORMANCE STANDARDS				TRAINING CONTENT	WTENT	6.4 68 co. 3
Descriptive: • Effecti	ve: ctively co	onducts tes	<pre>iptive: Effectively conducts test procedures at intervals or whenever equipment is malf:</pre>	<pre>iptive: Effectively conducts test procedures at prescribed intervals or whenever equipment is malfunctioning.</pre>	ibed ing.	Functional: • Understands detection a tors, audio	tional: Understands the principles and operations of detection and alarm system (sensing devices, tors, audio/visual alarms).		and operations of the fire (sensing devices, indica-
• Accui	Accurately det operations.	termines of	ff-limit co	Accurately determines off-limit conditions or faulty operations.	faulty	How to cond and/or faul	How to conduct test procedures for system performance and/or fault isolation.	ures for syst	em performan
• Preci	isely iso	Precisely isolates any faults.	faults.			Specific: • Knowledge o	<u>ific:</u> Knowledge of ship's fire detection and alarm system.	etection and	alarm system
• In 10 tion	00% of the s within	e cases, al	In 100% of the cases, all faults or off- tions within the system are detected and	limit I isola	condi-				
						の の の は 、 大 に は に の に に の に の に の に の に の に の に の に の に の に の に の に の に の に の に の に の に の に の に に に に に に に に に に に に に			
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WORKE	WORKER FUNCTION LEVEL AND ORIENTATION	L AND ORIENT	ATION			GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	/ELOPMENT
DATA %	PEOPLE	×	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38 55	14	5	2A	07	3	3	3	4
TASK CODE: II.A.6		GOAL: Maintain		s chemical	hazardous chemical liquid bulk cargo equipment and safety equipment.	go equipment and	safety equip	ment.
OLIECTIVE: Inspect	Inspect, test and repair equipment.	spair equi	pment.					
TASK: Tests the cargo monitoring/sensing devices, indicators cargo monitoring and alarms system is operating within the	Tests the cargo monitoring/sensing devices, go monitoring and alarms system is operating	ng/sensing system is	devices, in operating wi	indicators a within the l	and audio/visual alarms in order to ascertain that the limits specified in the vessel operating manual.	alarms in order in the vessel op	to ascertain erating manua	that the 1.
n Vierschiebe e	PERFORMANC	PERFORMANCE STANDARDS	10 mm	1	Section of the sectio	TRAINING CONTENT	NTENT	The part of
Descriptive:			and part fore	i i	Functional:			
• Conducts tes	Conducts test procedures precisely at vals or whenever equipment is malfunc	precisely nt is malf	1 1	prescribed inter- ioning.	• Understand cargo mond indicators	Understands the principles and operations of the cargo monitoring and alarm system (sensing devices, indicators, alarms).	s and operative m system (send	ons of the sing device
operations.					How to cor	How to conduct test procedures for system calibra-	dures for sys	pem calibra
• Precisely is	Precisely isolates any faults.	aults.			Specific:	ción and/or raure isolation. Ific:	.	
Numerical: In 100% of the ditions with	rical: In 100% of the cases, all faults or off-limit con- ditions within the system are detected and isolated.	l faults on are detect	r off-limit	con- lated.	• Knowledge system.	Knowledge of ship's cargo monitoring and alarm system.	monitoring an	nd alerm
	Lab 3857	The state of the s						
			8 B 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			ON The section of the	To the second	

TASK CODE:	II.A.7								
	WORKE	R FUNCTION LE	WORKER FUNCTION LEVEL AND ORIENTATI	TATION		200	GENERAI	GENERAL EDUCATIONAL DEVELOPMENT	ELOPMENT
DATA	×	PEOPLE	×	THINGS	×	INSTRUCTIONS	REASONING	MATH	LANGUAGE
-	09	14	S	IA	35		1	1	3
TASK CODE:	11.A.7		GOAL: Maintai	q	hazardous chemical	11quid bulk	cargo equipment and	d safety equipment.	ment.
OLLECTIVE:	Insp	ect, test a	Inspect, test and repair equi	quipment.		18年後の一年 18日本 18日本	Prince Sympleon	A Transport of the Control of the Co	A Line and
TASK: Ch	ecks vis	ually respi e available	Checks visually respiratory protect devices are available aboard the ve	ection equipm vessel when	ent accol	Checks visually respiratory protection equipment according to check list, in order to determine if enough devices are available aboard the vessel when transporting certain toxic chemical cargoes.	, in order to chemical cargo	determine if ees.	ų guon
		PERFORMA	PERFORMANCE STANDARDS		10.5		TRAINING CONTENT	ONTENT	
Descriptive:	ive:					Functional:			
• Comp	letes in	spection th	oroughly an	Completes inspection thoroughly and accurately.		How to condu	How to conduct inventory of equipment.	f equipment.	
Numerical:	1:					HOW CO WOU	rore numbers.		
o In all cargoes aboard.	11 cases oes, suff rd.	of shippin	In <u>all</u> cases of shipping certain toxic chemicargoes, sufficient respiratory equipment is aboard.	In all cases of shipping certain toxic chemical cargoes, sufficient respiratory equipment is aboard.	A TOWAR	Specific: • Knowledge of ment.	Knowledge of specific respiratory protection equipment.	fratory protec	tion equi
		TA ONGE SO				Knowledge of properties (etc.).	Knowledge of number of devices required. Knowledge of specific chemical cargo's hazardous properties (i.e., toxicity, respiratory irritation, etc.).	ices required. ical cargo's h , respiratory	azardous irritation
234 C 3/04.			Total total			greet of parties and R.		TOBA BARTAS BAR	
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	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	AND ORIEN	TATION		WARKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	THINGS	×	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	09	14	5	1.8	35	2	2	1	3

Maintain hazardous chemical liquid bulk cargo equipment and safety equipment.

OLECTIVE: Inspect, test and repair equipment.

TASK: Checks visually medical first aid equipment (such as oxygen resuscitation equipment and antidotes), according to a check list, in order to determine if equipment is aboard the vessel, and if antidotes are suitable for the specific chemical cargoes being transported by vessel.

TRAINING CONTENT	How to conduct inventory of equipment. How to conduct an inventory of equipment and antidotes using a check list.	Knowledge of specific medical first aid equipment (oxygen resuscitation equipment, chemical antidotes). Knowledge of properties and hazards of the specific	chemical cargo. Knowledge of medical instructions specifying antidote usage.	The control of the co	TO CAN AND THE WAY OF THE PARTY	1000年代の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の
A Designation	Functional: How to How to using a	Specific: • Knowled (oxygen) • Knowled	chemic • Knowlee usage.		PENTAGE TO SERVICE STATE OF THE SERVICE STATE STATE OF THE S	
		for uip- Is s are				
		In all cases, required antidotes are available for the specific chemical cargo being transported. In all cases, appropriate medical first aid equipment (such as oxygen resuscitation equipment) is aboard the vessel when certain chemical cargoes are				
STANDARDS	ughly and	idotes and being to being the medical distribution tain chertain				
PERFORMANCE STANDARDS	ection thoro	In all cases, required antidotes are available the specific chemical cargo being transported. In all cases, appropriate medical first aid equent (such as oxygen resuscitation equipment) aboard the vessel when certain chemical cargoe	Bup days			
	e: ites inspe	cases, recific checific checif	despectation of the second			
A	Descriptive: Complete Numerical:	the sp the sp In all ment (The State of the S	Soar State	ALEG	100 C 100 T

THINGS % INS 1A 35 n hazardous chemical lique stretchers used to hoist oard and stowed in an eas aid stretchers Specarid stretcher Specarid stretche	TASK CODE: II.A.9			LENGDAI	CENERAL COLICATIONAL DEVEL DOMENT	VELOPMENT
II.A.9 5 1A 35 1A 35 1A 35 1A 35 1A 35 1A.9 60Al: Maintain hazardous chemical lique inspect, test and repair equipment. Inspect, test and repair equipment. PERFORMANCE STANDARDS tive: pletes inspection thoroughly and accurately. more than XX complaints that first aid stretchers Special in the space.	ACTIVITIES OF THE PROPERTY OF	F	WORKER	OENEDAL OF STREET	NATU NATU	TANCHAGE.
II.A.9 GOAL: Maintain hazardous chemical lique Inspect, test and repair equipment. Inspect, test and repair equipment. hecks visually emergency first aid stretchers used to hoist an order to ensure that they are aboard and stowed in an easy relive: PERFORMANCE STANDARDS FUNCTION PERFORMANCE STANDARDS Function PERFORMANCE STANDARDS Function PERFORMANCE STANDARDS Function Special: Special: Stowed in an inaccessible space.	14 5		2	newsoning	-	LAMOUAUE 3
II.A.9 GOAL: Maintain hazardous chemical lique Inspect, test and repair equipment. hecks visually emergency first aid stretchers used to hoist an order to ensure that they are aboard and stowed in an eas rive: PERFORMANCE STANDARDS pletes inspection thoroughly and accurately. more than XX complaints that first aid stretchers stowed in an inaccessible space.	a			Section of the second		
Inspect, test and repair equipment. hecks visually emergency first aid stretchers used to hoist in order to ensure that they are aboard and stowed in an eas rive: PERFORMANCE STANDARDS pletes inspection thoroughly and accurately. more than XX complaints that first aid stretchers stowed in an inaccessible space.	II.A.9 GOAL: Maintain		al liquid bulk car	go equipment and	d safety equipment.	pment.
Checks visually emergency first aid stretchers used to hoist t, in order to ensure that they are aboard and stowed in an eas Criptive: Completes inspection thoroughly and accurately. erical: No more than XX complaints that first aid stretchers are stowed in an inaccessible space.		nt.	orp tess	PAREL BAYDEBY		
PERFORMANCE STANDARDS Ptive: mpletes inspection thoroughly and accurately. cal: more than XX complaints that first aid stretchers e stowed in an inaccessible space. e	Checks visually emergency first aid s	retchers used to	o hoist a person u an easily accessi	p from a space according ble space.	2	a check
mpletes inspection thoroughly and accurately. Cal: more than XX complaints that first aid stretchers e stowed in an inaccessible space.	PERFORMANCE STANDARDS	8		TRAINING CONTENT	NTENT	constitution of
more than XX complaints that first aid stretchers Specestowed in an inaccessible space.	<pre>riptive: Completes inspection thoroughly and acc rical:</pre>	rately.	Functional: • How to acco	tional: How to account for equipment. How to determine proper stowage areas (accessibility).	nt. owage areas (accessibility).
	e than XX complaints that first owed in an inaccessible space.	ld stretchers	Specific: • Knowledge of stretchers). • Knowledge of	Knowledge of specific first aid equipment (personnel stretchers).	t aid equipmen	nt (personnel sonnel entry.
	95 4 23 4 30 A 25 A 2					

	MOUNTED TORE 100 LEVEL AND UNIERIATION		WOOVER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA % PEOPLE %	THINGS	×	INSTRUCTIONS	REASONING	MATH	LANGUAGE
3B 60 1A 5	18	35	2	2	1	E .
TASK CODE: II.A.10 GOAL:	GOAL: Maintain hazardo	ous chemica	hazardous chemical liquid bulk cargo equipment and safety equipment.	to equipment and	d safety equi	lpment.
OLICTIVE: Inspect, test and repair equipment.	air equipment.					

PERFORMANCE STANDARDS	TRAIMING CONTENT
	Functional:
Descriptive:	How to take inventory of equipment.
Completes inspection thoroughly and accurately.	How to determine proper stowage areas (accessibility).
Numerical:	Specific:
 In all cases where personnel must work in a toxic gaseous atmosphere, sufficient quantity of safety 	• Knowledge of purpose, use and maintenance of personnel protective equipment.

Knowledge of purpose, use and maintenance of personnel protective equipment.	Knowledge of specific safety equipment (self-contained air breathing apparatus, protective	clothing, boots, gloves, tight-fitting goggles, steel cored rescue line with belt and explosive proof lamp).	Knowledge of vessel spaces used for personnel entry and require protection from toxic vapors.	Section with the section of the Section Section Section 1	Trustendra de alla concentration de la concent	
In all cases where personnel must work in a toxic gaseous atmosphere, sufficient quantity of safety	equipment is aboard the vessel.	No more than XX complaints, safety equipment is not stored in easily accessible places.		は最初の	のないです。 「他ののないない」となって、そのでは、大型のないできます。 (A) 1000000000000000000000000000000000000	A TOTAL STORY

TASK CODE: II.A.11	II.A.11								
	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	L AND ORIEN	TATION		85/80M	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH .	LANGUAGE
38	75	1.4	5	IA	20	3	3	3	3
TASK CODE: 11.A.11	(I.A.11		60AL: Maintain h	tain hazardou	is chemica	nazardous chemical liquid bulk cargo equipment and safety equipment.	to equipment and	safety equi	pment.
OBJECTIVE: 1	Inspect,	Inspect, test and repair equipment.	air equip	ment.		To agreement o			
TASK: Che as to nee in order	ecks visused and quarte ensert	ASK: Checks visually flammable, combustible as to need and quantity, noting that instrumin order to ensure sufficient and suitable d	ng that in	stible, and t nstruments ar able detection	toxic vapore calibrate on equipment	ASK: Checks visually flammable, combustible, and toxic vapor portable detection instruments, according to check list, as to need and quantity, noting that instruments are calibrated for testing the specific chemical cargoes carried, in order to ensure sufficient and suitable detection equipment is aboard the vessel.	lon instruments, le specific chem ressel.	according to	carried,
		PERFORMANC	PERFORMANCE STANDARDS			12 12 14 15 15	TRAINING CONTENT	ONTENT	
Descriptive:	ive:					Functional:	para sections are		

Sales of the		PERFORMAN	PERFORMANCE STANDARDS	28	118		TRAINING CONTENT
Descriptive:	lve:					Functional:	
• Compl	letes ins	Completes inspection thoroughly		and accurately.		• How to	How to account for equipment.
Numerical:	.					How to determine calibrated.	How to determine detection instruments are properly calibrated.
• In al	Li cases	In all cases where the specific requires combustible, flammable		chemical cargo re- and toxic vapor	ore-	Specific:	
aboard.	rd.	aboard.		פור לתשורורל דס		• Knowled	Knowledge of required quantity of detection instruments.
• In al for t	il cases, the speci	In <u>all</u> cases, detection instrumer for the specific chemical cargo b	instrument il cargo be	nts are calibrated being shipped.	rated	• Knowled toxic	Knowledge of specific flammable, combustible and toxic vapor portable detection instruments.
TOTAL STATE			Mary S. Andrews			• Knowled	Knowledge of specific chemical cargo's hazardous properties (toxicity and flammability).
						• Knowled	Knowledge of calibration data (graphs, tables, etc
217.5							Agent and an artist and a second
							CKS CLASSICARE SERVICE

TASK CODE:	II.A.12	2							
	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	AND ORIEN	TATION		MUBKEB	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	55	1A	5	07	2A	. 8	3	1	3

TASK CODE: II.A.12 GOAL: Maintain haza:	hazardous chemical liquid bulk cargo equipment and safety equipment.	cal liquid	bulk c	argo e	quipment	and safety	equipment.	
OLIECTIVE: Inspect, test and repair equipment.	.	4 N					hate of least our ren	
TASK: Inspects visually fire extinguishing equipment according to check list, for quantity of charge as indicated by gage, extinguisher shell strength by observing deterioration and/or corrosion of shell, reads inspection tags and/or log records to determine date of last inspection and tests, notifies by phone recognized company to conduct tests and inspections in accordance with standard operating procedure, in order to ensure equipment is in proper condition.	ipment accordideterioration and tests, no ing procedure,	ng to chec and/or co tifies by in order	k list, rrosion phone r	for q n of sh recogni	uantity o ell, read zed compa	f charge s s inspecti ny to cond in proper	is indicated by gage on tags and/or log luct tests and in- condition.	•

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
• Completes inspection accurately and thoroughly.	How to inspect fire extinguishing equipment, read
• Conducts inspections during prescribed time periods.	dials.
	How to read and follow standard operating procedure
Numerical:	
Completes all inspections at specified frequency	Specific:
and in accordance with standard operating procedures.	Mow to determine quantity of charge, extinguisher

shell strength.

es.

	LOPMENT	LANGUAGE	3
	GENERAL EDUCATIONAL DEVELOPMENT	MATH	1
	GENERAL	REASONING	2
	WORKER	INSTRUCTIONS	2
		*	30
	ATION	THINGS	1A
	AND ORIENT	%	5
	WORKER FUNCTION LEVEL AND ORIENTATION	PEOPLE	1A
II.A.13	WORKER	%	59
TASK CODE: II.A.13		DATA	-

OBJECTIVE:	VE:								100		Second in		1 6 7 2 10		2. 是我是是我们的一种是一种,我们们是是这种人的特别的。	
	Inspect, test and repair	est and re	pair	equipment.	nt.											
TASK:	TASK: Inspects visually and by touch apparatus, according to check I not deteriorated from exposure	ly and by diding to cl	couch seck l	77	material condition of fresh air breathing apparatus and self-contained breathing list and using own knowledge and judgment, in order to ensure rubber parts are to corrosive liquids or vapors.	tion (wm knc quids	of fres	sh air and	breath: judgmen	ing ap	paratus a	and se	lf-cont e rubbe	afned berts	breath! s are	8

Descriptive: Completes inspection thoroughly and accurately. Numerical:	Functional: How to inspect personnel protective equipment. How to detect poor material condition. Specific:
condition when it exists.	• Knowledge of specific shipboard personnel protection equipment (e.g., fresh air breathing apparatus and self-contained breathing apparatus).

TASK CODE: II.A.14	II.A.14								
	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	AND ORIEN	TATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	×	THINGS	%	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	75	1A	5	1A	20	2	2	3	8

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	intain hazardous chemical liquid bulk cargo equipment and safety equipment.
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The second second	DOE:
	CODE:
	TASK CODE:

OBJECTIVE:

Inspect, test and repair equipment.

TASK: Inspects visually condition of cargo tanks (observes amount of corrosive deterioration) designated for the carriage of a specific chemical cargo, according to check list, using own judgment and knowledge in order to determine material condition of cargo tanks.

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
 Completes inspection thoroughly and accurately. Follows prescribed precautionary measures. 	How to examine cargo tanks.
Numerical:	• How to detect poor material condition.
Derecas antra into careo tanke is not nermitted	Specific:

Knowledge of hazardous properties of a specific chem-

ical cargo (i.e., toxicity).

Knowledge of specific cargo tanks.

carrying a specific chemical cargo (e.g., chemical

cargo that is a health hazard).

Knowledge of inspection procedures of cargo tanks

Knowledge of check list.

in all cases where a tank previously contained a chemical cargo which is a health hazard to personnel.

Inspects external condition of all cargo tanks

according to check list.

TASK CODE: II.A.15	II.A.15								
	WORKER	NORKER FUNCTION LEVEL AND ORIENTATION	AND ORIENT	FATION		03.48UM	GENERA	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	×	SONIHL	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	80	1A	5	1.8	15	3	3	1	8

intain hazardous chemical liquid bulk cargo equipment and safety equipment.		nternal condition of cargo valves, according to check list, and using own judgment erioration and ensure proper operating condition of cargo valves.	TRAINING CONTENT	Functional: General knowledge of operating principles of cargo valves and internal parts (body, bonnet, packing glands, disks, gates, seats, guides, stem operating gear, position indicators).	How to examine external and internal parts of cargo valve. How to detect poor material condition.	Specific:
GOAL: Maintain hazardous chem	repair equipment.	hal and internal condition of steet deterioration and ensure	CE STANDARDS	a thorough and accurate	<u>ical:</u> Cargo valve operation is adequate in <u>all</u> cases of cargo transfer.	
TASK CODE: II.A.15	OBJECTIVE: Inspect, test and repair equipment.	TASK: Inspects visually external and i and knowledge in order to detect det	PERFORMANCE STANDA	Descriptive: Completes inspection in a thorough and accurate manner.	Numerical: • Cargo valve operation is cargo transfer.	

Knowledge of specific cargo valve and parts.

TASK CODE: II.A.16	II.A.10	9							
	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	EL AND ORIEN	VTATION		WORKED	GENERA	GENERAL EDUCATIONAL DEVELOPMENT	EVELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
1	20	14	5	1A	45	1	1	1	3
j.									
TASK CODE: II.A.16	II.A.16		GOAL: Mai	ntain hazardo	us chemica	60AL: Maintain hazardous chemical liquid bulk cargo equipment and safety equipment.	o equipment a	nd safety equi	lpment.
OBJECTIVE:	Inspect.	Inspect, test and repair equipment,	epair equ	ipment.		the make thought to	場を 47 という はない 18 年 7 という はない 18 年 7 日本 18 年 8 日本 18 日本	d lang sukser o	0.17

TASK: Inspects visually, removes, cleans flame arrestors, according to check list, using own knowledge and available tools in order to ensure the flame arrestor grid passages are clear of scale, soot, ice or other debris.

The second secon	The second secon	The second secon	The second secon	The state of the s	The state of the s	THE RESIDENCE OF THE PARTY OF T			Capacital & Stations
Descriptive:	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9					Functional:			
Complet	tes inspec	Completes inspection thoroughly.	ughly.			How to exam	How to examine flame arrestors.	stors.	
Thoroug	ghly clear	Thoroughly cleans flame arrestor grid.	restor gr	. PJ		How to clear	an flame arresto	How to clean flame arrestor grid passages.	
Numerical:						Specific: • Knowledge o	of location of v	ic: Knowledge of location of vessel's flame arrestors.	rrestors.
Less tl are no	han XX co t properly	Less than XX complaints that flame arrestors are not properly inspected and/or cleaned.	that flame d and/or c	arrestors leaned.		 Knowledge and lo flame arrestors. 	and location of stors.	Knowledge and location of tools needed to clean flame arrestors.	clean
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TASK CODE: II.A.17	II.A.17								
	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	. AND ORIEN	TATION		WORKER	GENERAI	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	374034	×	THINGS	*	INSTRUCTIONS	REASONING	HLYW	TANGUAGE
38	09	18	2	1.8	35	2	2	1	8

TASK CODE: II.A.1/	11.A.1/		GUAL	. Maintain	hazardous	chemical	liquid	bulk	cargo ec	ulpment a	nd satet	60AR: Maintain hazardous chemical liquid bulk cargo equipment and sarety equipment.	
ONECTIVE:	Inspect, test and repair equipment	st and r	cepair	equipmen	į.								
TASK: Ins	TASK: Inspects visually external condition of sea chests, sea valves, sea strainers and bilge injection valves, according to check list, using own judgment and knowledge, in order to determine if valves should be opened for internal	ly exter	mal c	ondition gment and	of sea cher knowledge	sts, sea	ralves, to det	sea s termin	trainers e if val	and bilg	e inject d be ope	ion valves, ned for int	accord-

100 No.	PERFORMANCE STANDARDS	STANDARD	8			TRAINING CONTENT	ITENT	
Descriptive: Complete	ptive: Completes inspection thoroughly and accurately.	roughly	and accurat	ely.	Functional: General k chests, s	onal: General knowledge of operating principles of sea chests, sea valves, sea strainers and bilge injection valves aboard vessels.	ating princi	ples of sea bilge injection
• Conduct	Conducts inspections during prescribed time periods.	ing pres	scribed time	periods.	• How to ma	How to make external examination of valves.	Ination of v	alves.
Numerical:					. How to de	How to detect poor material condition.	al condition	
• In lest	In less than XX of cases opening valveternal inspection were inappropriate.	opening	y valves for in-	-	How to ju external	How to judge internal condition of valves from external examination.	dition of va	lves from
• In all	In <u>all</u> cases an external inspection of valves was conducted in the prescribed time period.	l inspect	tion of valv e period.	res was	Specific: Knowledge sea strai	Knowledge of specific inspection procedures. Knowledge of specific sea chests, sea valves, sea strainers and bilge injection valves.	ection proce chests, sea jection valv	dures. valves,
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	WORKER	VORKER FUNCTION LEVEL AND ORIENT	AND ORIEN	TATION		azidom	GENERA	ENERAL EDUCATIONAL DEVELOPME	VELOPMENT	District Control
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE	
38	09	1.4	\$	18	35	2	2	1	3	1

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	.: Maintain hazardous chemical liquid bulk cargo equipment and safety equipment.
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	: II.A.18
	TASK CODE: II.A.18

OBJECTIVE:

Inspect, test and repair equipment.

ASK: Inspects visually (and by striking parts with hand) brackets and fastenings supporting internal piping, heating coils, valve rods, monitor tubes, etc., according to check list and using own knowledge and judgment in order to ensure they are secure and free from vibration, thereby preventing a source of ignition from sparks caused by striking metal parts.

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Completes inspection in a thorough and accurate Descriptive: manner.

Numerical:

Detects loosely secured metal parts in all cases where they exist.

Functional:

Knowledge of specific cargo tanks. aboard tank ships. Specific:

General knowledge of cargo transfer subsystem layout

TRAINING CONTENT

Knowledge of specific brackets and fastenings supporting internal piping, heating coils, valve rods, etc.

	TI.A.19	II.A.19 WORKER FUNCTION I EVEL AND OBJENTA	ANDORIEN	TATION			GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	THINGS	*	WORKER	REASONING	MATH	LANGUAGE
1	50	1A	~	1A	45	2	2	-	

TASK CODE:	TASK CODE: II.A.19	GOAL:	Maintain	hazardous	chemical	liquid	bulk o	cargo	equipment	and	safety	60AL: Maintain hazardous chemical liquid bulk cargo equipment and safety equipment.	
OBJECTIVE:	Inspect, test and repair	and rep	air equipment	ent.						4) (2)			
TASK: Inc to pag	TASK: Inspects/strikes with hand or hammer pressure vacuum relief valves listening for clicking of moving parts according to check list and using own knowledge and experience in order to determine that working parts are freely movable and passages are clear of polymer build up caused by cargo polymerization (self-reaction), scale, snow or ice.	n hand or ing own ki	hammer pr nowledge a build up	essure vac nd experie caused by	uum relie nce in or cargo pol	f valves der to o	list leterm	ening ine ti self-	for click hat workin reaction),	Ing o	f movir ts are e, snov	ng parts accord freely movable	ing and

			THITE
TRAINING CONTENT	onal: How to inspect pressure vacuum relief valves. How to determine if working parts are operable.	Knowledge of specific valves and working parts. Knowledge of properties of a specific chemical cargo (1.e., a chemical cargo that polymerizes under certain conditions).	And the second s
TRAIN	1]: to inspect pressur to determine if wo	Knowledge of specific valvo Knowledge of properties of cargo (1.e., a chemical'ca under certain conditions).	
E. C. C.	Functional: How t	Specific: Kno Kno car car und	
		satisfactorily	The state of the s
PERFORMANCE STANDARDS	roughly.	valve operates	Addition populations and the second s
PERFORMAN	Completes inspection thoroughly.	Pressure vacuum relief valve operates satisfactorily all the time.	121. V.20 121. V.20 121. V.20 121. V.20 121. V.20 121. V.20 121. V.20
	Descriptive:	Press	September 1997

	LOPMENT	LANGUAGE	3
	GENERAL EDUCATIONAL DEVELOPMENT	MATH	1
	GENERAL	REASONING	3
	933907	INSTRUCTIONS	3
		*	20
	NTATION	THINGS	1.4
	AND ORIENT	*	5
	ORKER FUNCTION LEVEL AND ORIE	PEOPLE	1A
II.A.20	WORKERF	×	75
TASK CODE:		DATA	38

									The state of the s			
38	75	1A	5		1.4	20	3		3			3
TASK CODE: 11.A.20	11.A.20		GOAL: F	aintain	nazardous	chemical	Ind pinbii	K cargo	60AL: Maintain nazardous chemical ilquid bulk cargo equipment and salety equipment.	und sarety	edarba	inc.
OLUECTIVE:	Inspect,	Inspect, test and repair		equipment.	:							
TASK: Inspumping ensure ca	pects visu liquid car argo leaka	TASK: Inspects visually cargo hose (1 pumping liquid cargo at a particular ensure cargo leakage does not occur	hose (rrticula	10. 5	r kinks, re, accor body of	bulges, s ding to c hose duri	ooks for kinks, bulges, soft spots, gouges; pressure, according to check list, using through body of hose during cargo transfer	gouges, using or ansfer.	looks for kinks, bulges, soft spots, gouges, cuts, slashes, etc.), to be used in r pressure, according to check list, using own judgment and knowledge, in order to through body of hose during cargo transfer.	and knowle	to be	used in order to

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
• Completes inspection in a thorough and accurate	How to inspect cargo hose.
manner.	How to detect poor material condition of cargo hose
Numerical:	(i.e., kinks, bulges, soft spots, gouges, cuts, slashes, etc.).
 Cargo leakage through body of hose does not occur in all cases involving cargo transfer. 	Specific:
	Vnowledge of check 14st

MONKER DATA & REPRE & THHISS & WORKER REAGONING BATH LANGUAGE 2 70 1A 5 11A 23 2 2 2 2 3 3 3 3 4 3 5 11A 23 2 2 2 2 3 3 3 2 2 3 3 3 4 3 3 4 4 4 4	TASK CODE:	II.A.21								
TASK CODE: II.A.21 OBJECTIVE: Inspect, test and repair equipment. TASK CODE: II.A.21 OBJECTIVE: Inspect, test and repair equipment. TASK: Inspects visually electric or battery-operated power tools accomportable electric equipment, etc., which are used in restricted for such equipment in order to ensure that equipment is of the ation, and that cables do not pass through hazardous areas. Descriptive: Inspects equipment thoroughly. Numerical: Inspects all power tools expected to be used or actually used in restricted areas.		WORKER	FUNCTION LEV	EL AND ORIEN	TATION		WORKER	GENERAL	EDUCATIONAL DEV	/ELOPMENT
TASK CODE: II.A.21 GOAH: Maintain hazardous chemical liquoleEffTVE: Inspect, test and repair equipment. TASK: Inspects visually electric or battery-operated power tools accomportable electric equipment, etc., which are used in restricted for such equipment in order to ensure that equipment is of the ation, and that cables do not pass through hazardous areas. PERFORMANCE STANDARDS Descriptive: Inspects all power tools expected to be used or actually used in restricted areas.	DATA	%	314034	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
TASK CODE: II.A.21 GOAL: Maintain hazardous chemical liquosizative: Inspect, test and repair equipment. TASK: Inspects visually electric or battery-operated power tools accord portable electric equipment, etc., which are used in restricted for such equipment in order to ensure that equipment is of the ation, and that cables do not pass through hazardous areas. PERFORMANCE STANDARDS PERFORMANCE STANDARDS PUMBETICAL: INMEDIA STANDARDS PUMBETICAL: SPECIA SPECIA SPECIA PUMBETICAL: INMEDIA STANDARDS PUMBETICAL: INMEDIA STANDARDS	2	70	1.4	2	14	25	2	2	2	. 3
TASK: Inspects visually electric or battery-operated power tools accord portable electric equipment, etc., which are used in restricted for such equipment in order to ensure that equipment is of the ation, and that cables do not pass through hazardous areas. PERFORMANCE STANDANDS Descriptive: Inspects equipment thoroughly. Winnerical: Inspects all power tools expected to be used or actually used in restricted areas.	TASK CODE:	II.A.21			ntain hazardo	us chemic	liquid bulk	equipment		pment.
TASK: Inspects visually electric or battery-operated power tools according a portable electric equipment, etc., which are used in restricted for such equipment in order to ensure that equipment is of the ation, and that cables do not pass through hazardous areas. PERFORMANCE STANDARDS Descriptive: Inspects equipment thoroughly. Numerical: Inspects all power tools expected to be used or actually used in restricted areas.	OBJECTIVE:	Inspe	ct, test an	d repair e	quipment.			AND REPORTS BETTER	Company of the second	
Descriptive: Inspects equipment thoroughly. Numerical: Inspects all power tools expected to be used or actually used in restricted areas.	TASK: Inspe porta for s	cts visua ble elect uch equip and that	ily electri ric equipme ment in ord	c or batte int, etc., ler to ensu	which are usine that equip	power too.		ck list (such a inspects flexile, according to	s hand torcher ble cables (w	s, hand lamps, andering leads) fety informs-
Descriptive: Inspects equipment thoroughly. Numerical: Inspects all power tools expected to be used or actually used in restricted areas. Speci			PERFORMAN	CE STANDARD				TRAINING CO.	NTENT	
cts equipment thoroughly. cts all power tools expected to be used or acty used in restricted areas. Speci	Descripti	Ive:	hardgard alpe		g Zook Marting a N		Functional:	Productive del gradient	5 Spenier for	10,790
cts all power tools expected to be used or ac- y used in restricted areas. Speci	• Inst	ects equi	Ipment thor	oughly.			• Knowledge of tools used	f safety restrict in restricted an	ctions/requir	ements for powe
d to be used or ac-	Numerica	<u></u>					• General know	wledge of hazard	ds of using p	over tools in
Special	• Inst	sects all	power tool	s expected		- ac-	restricted	areas.		
Knowledge of type and location of power tools used on particular ship. Knowledge of specific ship/company/terminal safety regulations relevant to use of power tools.		Ly used 1	n restricte	areas.			Recognition markings or	/understanding c	of authorized for power too.	, approved is.
Knowledge of type and location of power tools used on particular ship. Knowledge of specific ship/company/terminal safety regulations relevant to use of power tools.							Specific:			
• Knowledge of specific ship/company/terminal safety regulations relevant to use of power tools.	SMISSING.						Knowledge of on particular	f type and local ar ship.	tion of power	tools used
Service Control of the Control of th							• Knowledge o	f specific ship/ relevant to use	/company/term	inal safety
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	WORKER	WORKER FUNCTION LEVEL AND ORIEN	AND ORIEN	TATION			GENERAL	SENERAL EDUCATIONAL DEVELOPMEN	VELOPMENT
DATA	*	PEOPLE	*	SONINL	*	INSTRUCTIONS	REASONING	HIVM	LANGUAGE
38	75	1A	5	14	20	2	2	3	8

TASK CODE:	TASK CODE: 11.A.22	GOAL: Maintain hazardous chemical bulk liquid cargo equipment and safety equipment.	urdous chemical	bulk liquid	cargo equ	1pment and	safety equipment	
OLLECTIVE:	Inspect, test and repair equipment.	pair equipment.		122222			bu dealing to apply	
TASK: Insp 12 Conduction	Inspects visually cargo space area where "hot work" will be performed (welding, hammering, chipping, etc.), according 100 check list, checks for flammable vapor and oxygen content of cargo space, looks for impregnated scale or other material likely to give off flammable/harmful vapor, checks adjacent spaces, evaluates what may happen when heat is transmitted by conduction to next space, using own judgment, knowledge and experience in order to determine whether or not it is safe to negate the markfuller area of vessel.	mmable vapor and o harmful vapor, che ng own judgment, k	oot work" will oxygen content scks adjacent s mowledge and e	be performed of cargo spac paces, evalue xperience in	(welding, ce, looks ites what order to	hammering for impreg may happer determine	, chipping, etc.) nated scale or ot when heat is tra whether or not it	according her material hsmitted by is safe to

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
Completes inspection thoroughly and accurately.	• General knowledge of layout of vessel's spaces.
Numerical:	 How to inspect and evaluate conditions for safe conduct of potentially dangerous work.
• "Hot work" is not permitted in all cases where dan- gerous conditions exist (e.g., presence of flammable/	Specific:

	WORKER	WORKER FUNCTION LEVEL AND ORIENT	EL AND ORIENT	TATION			GENERA	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	×	THINGS	*	WORKER	REASONING	MATH	LANGUAGE
38	35	14	S	28	09	2	3	2	7
TASK CODE:	II.A.23		GOAL: Maint	tain hazardo	us chemic	eain hazardous chemical liquid bulk cargo	equipment	and safety equi	equipment.
OBJECTIVE:	Inspect	Inspect, test and repair equi	repair equ	ipment.		esta de la company de la compa	A MANAGEMENT OF THE SECOND SEC	Chiel Selection of a	Service Control
rASK: Opera standard cargo pum	operatin p pressu	SK. Operates/controls cargo pump (start standard operating procedure, in order cargo pump pressure gages for accuracy	pump (star , in order r accuracy	a to	ontrols s per funct ischarge	stops, controls speed using push buttons on control panel), following test proper functioning of cargo pump relief valves at set pressures, cargo discharge piping for tightness.	ttons on contro mp relief valve ss.	ol panel), following	lowing sures,
		PERFORMANC	PERFORMANCE STANDARDS			general grown etc. Admin	TRAINING CONTENT	ONTENT	
Descriptive:	ve:					Functional:	Supplied fully	regionada et a	
• Opera	ites and etes tes	Operates and controls cargo pump correctly. Completes tests accurately and thoroughly.	rgo pump c	orrectly.		• General know pump, relief	General knowledge of operating principles of cargo pump, relief valves, pressure gages, etc.	ing principles ire gages, etc.	s of cargo
Numerical:	.,					How to determ	How to operate cargo pump controls. How to determine if equipment is functioning properly.	controls. ent is functio	ning proper
• Compl	letes all	Completes all tests at specified frequency.	pecified f	requency.		How to use an	How to use available tools and equipment.	and equipment	
PARTER FOR						Specific: • Knowledge of	<u>ific:</u> Knowledge of specific standard operating procedures.	lard operating	procedures
						• Knowledge of specific pressure gages, cargo	specific cargo pues, cargo piping,	etc.	relief valves,
						raining party casso		Chips years	

TASK CODE: II.A.24	II.A.24								
	WORKER	ORKER FUNCTION LEVEL AND ORIENT	L AND ORIEN	ITATION		asiaum	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	374034	×	THINGS	*	INSTRUCTIONS	REASONING	MATH	TANGUAGE
2	35	1.4	2	10	09	2	2	1	8

TASK CODE: II.A.24	II.A.24	GOAL: 1	Maintain	hazardous	chemical	liquid	bulk	cargo	equipment	and s	afety	GOAL: Maintain hazardous chemical liquid bulk cargo equipment and safety equipment.	
OLLECTIVE:	Inspect, test and repair	nd repair	r equipment	ent.					SETTOOM			152 to 1	100
TASK: Tends equipment	TASK: Tends air compressor (starts, stops, using push button controls), supplying air to compressed air personnel sai equipment, visually inspects critical areas of safety equipment to detect air leakage, according to check list, in	(starts, cts crit;	1 - 0	using push as of safe	button co	ontrols)	, sup	plying air l	air to c	cordi	ssed a:	stops, using push button controls), supplying air to compressed air personnel safety cal areas of safety equipment to detect air leakage, according to check list, in	safety

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive: as reason secure, as a constant of the second secure of the second	Functional:
• Operates and controls air compressor correctly.	How to operate air compressor controls.
Pelication nice	 How to determine equipment is functioning properly.
• Completes tests accurately and thoroughly.	• How to read and follow procedures.
Numerical:	Specific:
 Completes tests of all compressed air personnel safety equipment when required. 	 Knowledge of specific air compressor subsystem (compressor, air lines, relief valves, stop valves, etc.).
Accounted to the agent does does designed.	 Knowledge of specific personnel safety equipment (e.g., fresh air breathing apparatus).
About the property of the second seco	
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	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	EL AND ORIEN	TATION		97,90%	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	×	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
1	35	41	2	10	09	2	1		3
TASK CODE:	II.A.25		GOAL: Maint	ntain hazardous chemical	ous chemic	al liquid bulk cargo equipment	go equipment and	d safety equipment.	pment.
OBJECTIVE:	Inspect,	Inspect, test and repair equipment.	epair equ	lpment.	W.	14.50			
TASK: Opens check 11s	valves t, in or	Opens valves (manually turns handwheel) k list, in order to test proper function	turns hand		olling dec f safety e	controlling decontamination shower and eyewash operation according ing of safety equipment.	r and eyewash o	peration acco	rding to
		PERFORMAN	PERFORMANCE STANDARDS	6		State	TRAINING CONTENT	MTENT	
Descriptive:	ëi		A 1 1 2 2 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4	The American Security of		Functional:	A True gardensta		
Opens	Opens valves properly.	roperly.				How to operate valves.	te valves.		
Compl	etes test	Completes tests in a thorough manner.	rough man	ner.		How to detern	How to determine equipment is functioning properly.	is functionin	g properly.
Numerical:						• How to read	How to read and follow procedures.	edures.	
Comple and e	etes test yewashes	Completes tests on all decon and eyewashes when required.	econtamin red.	Completes tests on all decontamination showers and eyewashes when required.		Specific: • Knowledge of specieyewash equipment.	$\overline{f1c}$: Knowledge of specific decontamination shower and eyewash equipment.	tamination sh	ower and
			advr. Mr			and the gold of the		STATE OF THE STATE	
						AND FROM THE MAN			
				CARLES		Salary and the salary of the s			

TASK CODE: 11.B.1	11.8.									
	WORKER	ORKER FUNCTION LEVEL AND ORIENT	AND ORIEN	ITATION		OS/AGOM.	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT	
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE	
4	80	14	2	1	15	7	7	3	4	_

TASK CODE:	TASK CODE: 11.B.1	GOAL:	Maintain	hazardous	chemical	11qu1d	bulk ca	argo e	quipment	and	safety	Maintain hazardous chemical liquid bulk cargo equipment and safety equipment.	
	Clean and gas-free cargo tanks.	free ca	rgo tanks.										
TASK: Ex	Examines and evaluates data concerning the facilitation of cargo changes in cargo tanks, and considers other factors aboard ship or in environment, in order to determine when/if tanks should be cleaned (gas-freed).	s data	concerning vironment,	the fact,	litation of to determ	of cargo	chang n/1f t	es in	cargo ta	clear	and co	nsiders of as-freed).	Jet

	I KAINING CONTENT
Descriptive:	Functional:
• Good judgment is used in discretionary areas.	General knowledge of the operation, hazards, and re-
 Evaluates/examines information data thoroughly and accurately. 	General knowledge of the conditions necessitating
 Shows an awareness of potential hazards of cleaning 	cleaning and gas-freeing operations.
and gas-freeing.	How to read, understand company, terminal, and federal regulations.
Numerical:	■ How to identify insafe conditions resulting from im-
• Examines and evaluates all available data.	proper or inappropriate cleaning and gas-freeing operations.
	Specific:
	Knowledge of chemical characteristics and hazardous properties of cargo being transferred from and to cargo compartments.
	Knowledge of specific cleaning and gas-freeing operations.
	AND STATE OF THE PROPERTY OF T

The state of the s	MOUNTER	MUKKEK FUNCTION LEVEL AND UKIENTAT	L AND OR	ENTATION		WARKED	GENERA	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	THINGS	×	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	09	2	30	1.4	10	3	4	2	4
TASK CODE:	11.8.2		GOAL: Ma	intain hazar	dous chemics	GOAL: Maintain hazardous chemical liquid bulk cargo equipment and safety equipment.	go equipment as	nd safety equi	pment.

TASK: Inspects visually closure of appropriate cargo tank lids, tank washing openings, ullage openings, vent pipes, isola-	TASK CODE:	II.B.2 GOAL: Mainta	GOAL:	Maintair tanks.	GOAL: Maintain hazardous chemical liquid bulk cargo equipment and safety equipment.	s chemical	11qu1d	bulk o	argo eq	ifpment a	nd safet)	w equipm	ent.	
	ASK: Inspe	cts visually closur of cargo lines and	e of vent	appropri	ate cargo losure of	tank lids,	tank we	shing discha	opening	i, ullage	opening o	s, vent	pipes of w	. 5

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
• Completes inspection in a thorough manner.	• General knowledge of cargo transfer subsystem (cargo tank lids, tank openings, vent pipes,
Numerical:	cargo lines, vent lines, sea and overboard discharge valves, etc.).
מודי סלפרוונפת דובותם מוב יותסלפרובתי	How to inspect hardware and detect unsafe conditions.
THE RESERVE OF THE PROPERTY OF	General knowledge of tankship safety practices.
AND DELIGIOUS EMPRESSES SECTIONS OF CONTROL OF SECTIONS OF SECTION	Specific:
Served See - see and see a	• Knowledge of specific layout of cargo transfer subsystem on vessel.
	• Knowledge of standard operating procedures.
The state of the s	Action of the second se
A CONTRACTOR CONTRACTO	PENNENN FIRST PROPERTY OF THE

TASK CODE:	II.B.3	3							
	WORKER	WORKER FUNCTION LEVEL AND ORIENT/	AND ORIENT	TATION		WORKER	GENERAL	ENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	STAOSA	*	SONIHL	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
4	40	5	90	1	10	5	5	3	7

TASK CODE:	II.B.3	GOAL: Maintain	hazardous	chemical	liquid b	ulk carg	intain hazardous chemical liquid bulk cargo equipment and safety equipment.	and sa	fety eq	quipment.	
OBJECTIVE:	Clean and gas-free carg	-free cargo tanl	ks.		appropria						

TASK: Common to other systems, opening tank lids, clearing lines, making hose connections, removing electrically-conductive
and unearthed objects, following standard operating procedure, and using own knowledge of cleaning and gas-freeing op-
erations, and properties of cargo transferred to and from tanks, and own judgment in order to assure that tanks, equip-
ment and ship area are adequately prepared for cleaning and gas-freeing operations.

	and era men	l unearthed itions, and it and ship	and unearthed objects, following standard operating procedure, erations, and properties of cargo transferred to and from tanks ment and ship area are adequately prepared for cleaning and gas	of cargo equately	standar transf prepar	d operatinerred to a ed for cle	ng procedurand from ta	and unearthed objects, following standard operating procedure, and using own knowledge of cleaning and gas-freeing op- erations, and properties of cargo transferred to and from tanks, and own judgment in order to assure that tanks, equip- ment and ship area are adequately prepared for cleaning and gas-freeing operations.
.,		TOTAL STATE	PERFOR	PERFORMANCE STANDAR	IDARDS			TRAINING CONTENT
J-38	Des	Descriptive:						Functional:
3	•	Maintains	Maintains effective communication with personnel.	ommunica	tion wi	th person	lel.	General knowledge of tank cleaning and gas-freeing
	•	Directs p	Directs preparations at the appropriate time preceding cleaning and gas-freeing operations.	at the a	ppropri	ate time pons.	preced-	operations and equipment. How to prepare equipment, cargo tanks, ship area for
	•	Assures t	Assures that equipment adjustments are performed	t adjust	ments a	re perfor	ned	cleaning and gas-freeing operations.
-		properly.				STORE OF ST	No. of Contract of	General knowledge of the hazards of cargo tank clean-
100	•	Uses good	Uses good judgment in discretionary areas.	discret	lonary	areas.		ing and gas-freeing operations.
		•						How to supervise and communicate with shipboard per-
	Neg	Numerical:						somel.
	•	All neces to cleans	All necessary equipment preparations are made prior to cleaning and gas-freeing operations.	nt prepare	rations	are made	prior	• Knowledge of the effect of various hazardous properties of cargoes and different atmospheric conditions
-	•	Directs a	Directs and maintains effective	effecti		communication with	with	in tanks on cleaning and gas-ireeing operations.
		personnel	personnel at all times.	. 8				Specific:
								Knowledge of vessel's standard operating procedures
								Concerning cleaning and gas-ireeing operations. • Knowledge of chemical properties of cargo being
								transferred to or from cargo tanks and atmospheric conditions in tanks.
4								

	MORKER WORKER	I.B.4 NORKER FUNCTION LEVEL AND	AND ORIENT	ORIENTATION		023,000	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
7	40	5	50	¥1 ,	10	7	7	3	7

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DATA	×	PEOPLE	×	THINGS	SĐA	×	INSTRUCTIONS	REASONING	16	MATH	LANGUAGE	
4	40	\$	20	1	A	10	4	4		3	7	
	A 8 TT		M S	futain h	orotro	chemica	Metatata herardone chemical Itanid bulk carea equinment and safety equinment.	aron equipmen	it and	safety equi	Danent.	
TASK CODE:	*******		GOAL: TA	THE WITH	ara I nons	CHEMICA	a wind ninher -	and the of the		mka (aarma		
OBJECTIVE:	Clean	Clean and gas-free cargo	ree cargo	tanks.								
TASK: fast lowered lowing s	cts perscened to for remove tandard o	SK: fastened to fixture on deck or lift lowered or removed from tank if ship's lowing standard operating procedure an	install leck or l if ship	ation of ifting g 's motio and usin	cleanin ear such n is lik g commun	g machin as ship ely to c ications	Directs personnel in the installation of cleaning machine in cargo tank, observes the machine being lowered with rope fastened to fixture on deck or lifting gear such as ship's tackle ropes, pulleys, etc., does not permit machine to be lowered or removed from tank if ship's motion is likely to cause metal surfaces to strike steel structure of vessel, following standard operating procedure and using communications equipment when necessary, and own judgment in order to pre-	, observes t , pulleys, er aces to stril necessary,	he mac tc., do ke stee	hine being loes not permel structure	owered with rit machine to of vessel, fin order to pr	ope ol-
Date		-			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	DE LA COL	TYOM COME WOLL					

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Descriptive

PERFORMANCE STANDARDS

Directs personnel effectively.

How to supervise/communicate with shipboard personnel.

Functional

TRAINING CONTENT

- Maintains effective communication with personnel.
- Ensures that equipment is properly set up
- Ensures that arrangement is completely accurate and thorough according to specified procedures.
- Uses good judgment in discretionary areas.

Numerical:

- vessel motion, cleaning machine is not lowered into surface is likely to strike steel structure due to cargo residue and where the risk of metal machine In all cases involving flammable chemical liquid tank or is removed from tank.
- Directs and maintains effective communication with personnel at all times.
- Judgment is good in all discretionary cases.

How to read and follow standard operating procedures, General knowledge of tanker safety practices related How to lower heavy equipment into cargo tanks. to cargo tank cleaning operations motion.

How to judge unsafe working conditions due to vessel tanker safety practices.

Specific:

- Knowledge of vessel's cargo tank cleaning equipment (washing machine, lifting gear, etc.).
- Knowledge of specific standard operating procedures.

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WORKER FUNCTION LEVEL AND ORIENTA	PEOPLE	5
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OBJECTIVE:

Clean and gas-free cargo tanks.

Directs personnel in cargo tank cleaning and gas-freeing operations, following standard operating procedure, using ensuring that procedures are appropriate to atmospheric conditions in cargo tank or to the specific hazards of cargo onboard permanent or portable communications equipment or face-to-face communication and using own judgment in that is transferred to and from tanks being washed or gas-freed.

TRAINING CONTENT

Functional

PERFORMANCE STANDARDS

Descriptive: Ensures that cleaning and gas-freeing operations are thorough and completed according to standard operating procedure.

Maintains effective communication with personnel.

Uses good judgment in discretionary areas.

Numerical:

- Correct procedures are directed in accordance with each atmospheric condition or other unique characteristics of cargo being transferred.
- Appropriately directs and maintains effective communication with personnel at all times.

General knowledge of tank cleaning and gas-freeing operations and equipment. How to understand standard operating procedures relevant to cargo transfer operations. General knowledge of the hazards and problems with cleaning and gas-freeing operations. How to supervise and communicate with shipboard personnel Knowledge of the effect of different atmospheric conditions in cargo tanks on cleaning or gas-freeing operations.

Specific:

· Knowledge of specific standard operating procedures.

Knowledge of the effect of various hazardous properties

of cargoes on cleaning and gas-freeing operations.

Knowledge of atmospheric conditions in cargo tanks and hazardous properties of specific cargo being transferred to and from tanks being cleaned and gas-freed.

J-40

TASK CODE: 11.5.0	11.5.0								
	WORKER	NORKER FUNCTION LEVEL AND ORIENTATION	AND ORIENT	ATION		MODIKED	GENERAI	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	314034	×	THINGS	*	INSTRUCTIONS	REASONING	HIVM	LANGUA
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	Maintain hazardous chemical liquid bulk cargo equipment and safety equipment
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OBJECTIVE:

Clean and gas-free cargo tanks.

TASK: Operates/controls cargo tank water spray washing machine (starts, stops, controls speed), using push buttons on control panel, monitors operating dials, following standard operating procedure, and using judgment to stay within limits, in order to remove liquid cargo residue from tank walls.

TRAINING CONTENT	Functional:
PERFORMANCE STANDARDS	Descriptive:

General knowledge of operating principles of cargo

tank water spray washing machine.

How to operate controls on control panel.

How to read dials.

Descriptive: Avoids the generation of static electricity by not permitting wash water flow rate to exceed limits specified in current tanker safety codes.

Numerical: • Less than XX complaints that tank cleanliness was inadequate.

specified in current tanker safety codes so as to avoid generation of static electricity.

Specific:Knowledge of specific water spray washing machine operation.

Knowledge of tanker safety practices (e.g., International Oil Tanker and Terminal Safety Guide).

How to inspect cargo tank for cleanliness.

- . Knowledge of specific cargo tanks.
- Knowledge of standard operating procedure on cargo tank cleaning.

J-41

TASK CODE:	II.B.7								
	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	EL AND ORIEN	TATION		MODEED	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	. 07	14	10	28	20	S STATE OF S	3	3	, 4
TASK CODE:	11.8.7		GOAL: Mai	Maintain hazardous	lous chemical	cal liquid bulk cargo	go equipment and	safety	equipment.
OBJECTIVE:	Clea	Clean and gas-free cargo t	ree cargo	tanks.		a Strong and	and the section of	198 F 75 229 9	sinkle our year
TASK: Opera indicating discharge slop tank.	rates/con ng operat e of clea	ASK: Operates/controls cargo pump (starts, sindicating operating pressures and transfer discharge of cleaning liquid/cargo residue, slop tank.	pump (stages and trages res	irts, stops, insfer rate, sidue, in ord	controls following ler to tra	NSK: Operates/controls cargo pump (starts, stops, controls speed) using push buttons on control panel, observes dials indicating operating pressures and transfer rate, following standard operating procedure, does not permit overboard discharge of cleaning liquid/cargo residue, in order to transfer cleaning liquid and cargo residue from cargo tank to slop tank.	outtons on contr g procedure, doe id and cargo re	rol panel, ob es not permit esidue from c	serves dials overboard argo tank to
Lacon mayor		PERFORMAN	PERFORMANCE STANDARDS	S		Tobal Com Tobal	TRAINING CONTENT	INTENT	
Descriptive:	ive:	. The first of the second		The state of the s		Functional:			
• Oper	stes/cont	rols liquid	transfer	Operates/controls liquid transfer in a proper manner.	manner.	General kno pump and tr	General knowledge of operating principles of cargo pump and transfer subsystem.	ating princip	les of cargo
Numerical:	<u>.</u>					How to oper	How to operate controls on control panel.	a control pan	el.
•	cargo res	All cargo residue is transferred to	nsterred	to slop tank.		How to read dials.	dials.	18.00 mm	
			08/450 OS480	or autobases a		Knowledge of national Of	Knowledge of tanker safety practices (e.g., Int national Oil Tanker and Terminal Safety Guide).	y practices (erminal Safet	e.g., Inter- y Guide).
		TOTAL PROPERTY OF			Service of the servic	Specific:			
		the soul Resembles				Knowledge of staing cargo pumps.	Knowledge of standard operating procedure for clean- ing cargo pumps.	rating proced	ure for clean-
Joseph Marie					977 TA TATE OF	Knowledge of sp Knowledge of sp their location.	Knowledge of specific cargo pump operation. Knowledge of specific cargo and slop tanks and their location.	go pump opera go and slop t	rtion. anks and
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TASK CODE: II.B.8	II.B.8								
	WORKER	WORKER FUNCTION LEVEL AND ORIENTA	AND ORIENT	TATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
1	35	14	S	21	09	2	2	1	7

TASK CODE: II.B.8	11.8.8	GOAL:	Maintain	hazardous	chemical	liquid	bulk	cargo	equipment	and	safety	GOAL: Maintain hazardous chemical liquid bulk cargo equipment and safety equipment.	
OBJECTIVE:	Clean and gas-free cargo	-free ca	argo tanks.			10 must		The Section			9.0	an nada	7
TASK: Te	NK: Tends inert gas or air blower equipment (starts, stops), using push buttons operating procedure, in order to eliminate hazardous cargo vapors in cargo tanks.	ir blow der to	er equipme	ent (start	s, stops),	using oors in	push	buttor	is on cont	rol 1	panel,	equipment (starts, stops), using push buttons on control panel, following standard minate hazardous cargo vapors in cargo tanks.	tandard

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Ids blower equipment in a proper manner. (a1: noves cargo vapors and eliminates hazard in all es. Speci	PERFORMANCE STANDARDS	TRAINING CONTENT
Tends blower equipment in a proper manner. erical: Removes cargo vapors and eliminates hazard in all cases. Speci	Descriptive:	Functional:
Removes cargo vapors and eliminates hazard in all Speci	er	 General knowledge of operating principles of inert gas or air blower equipment used to gas-free cargo tanks.
• Section 1.	• Removes cargo vapors and eliminates hazard in all cases.	How to operate blower equipment controls. Low to read operation detructions and procedures.
• • • • • • • • • • • • • • • • • • •		Knowledge of tanker safety practices (e.g., International Oil Tanker and Terminal Safety Guide).
	the control of the fine thing of the control of	Specific:
Plans a superior of the superi		 Knowledge of standard operating procedure for gas- freeing cargo tanks.
STATE OF THE STATE	TRACTOR SELECTION OF THE CONTROL OF	 Knowledge of specific inert gas or air blower equipment operation.
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TASK CODE: II.B.9	II.B.9								
	WORKER	JORKER FUNCTION LEVEL AND ORIEN	L AND ORIEN	TATION		BENBUM	GENERA	GENERAL EDUCATIONAL DEVELOPMEN	VELOPMENT
DATA	*	314034	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
4	09	14	2	2A	35	7	7	3	7

TASK CODE: II.B.9	II.B.9	GOAL:	Maintain	60AL: Maintain hazardous chemical liquid bulk cargo equipment and safety equipment.	chemical	liquid	bulk o	cargo (equipment	and safe	ty equ	ifpment.	
OBJECTIVE:	Clean and gas-free cargo	carg	o tanks.		() Sand Provide				Disco Empide	15.100		on saluben	

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TASK: Examines and evaluates data concerning the presence of hazardous vapor in cargo tanks, carries and uses portable	gas indicators and reads gauges, manipulating switches and controls that sample atmosphere, following standard operat-	ing procedure, and own judgment and knowledge, in order to test atmosphere and determine whether space is clear of	hazardous vapor.
SK:	Se	Bu	828
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PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
 Evaluates and examines data thoroughly and accurately. Good judgment is used in discretionary areas. 	 How to identify unsafe conditions due to hazardous vapors in tanks.
Manipulates equipment correctly.	How to read dials containing decimal scale.
• Completes tests which are accurate and thorough, and representative of the condition of the entire space in question.	 how to determine it tank is gas-iree. Knowledge of tanker safety practices (e.g., International Oil Tanker and Terminal Safety Guide).
• Completes tests at intervals appropriate to the work at hand.	Specific:
Numerical:	 Knowledge of standard operating procedure on the use of portable gas indicators.
• Fewer than XX complaints on accuracy of tests.	 Knowledge of flammability limits and toxic vapor threshold limit values.
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TASK CODE: III.A.1	III.A.1								
	WORKER	WORKER FUNCTION LEVEL AND ORIEN	AND ORIENT	TATION		WARKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	/ELOPMENT
DATA	*	PEOPLE	*	SONIHL	*	INSTRUCTIONS	REASONING	HATH	LANGUAGE
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I ASK COU	IASK COUR: III.A.I			SUAL:	Conduct	WOAL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.	18 Ch	emical	11901	Dalk	carg	o trai	Brer	operatio	ms sa	rely.			
OBJECTIVE:	: Plan	cargo	transf	er op	Plan cargo transfer operations	8													
TASK: Co	TASK: Communicates with terminal authorities about formulated cargo transfer plan via radio in order to receive berthing information relating to cargo transfer operations, to obtain mooring plan, to receive data on cargo transfer pro-	with relative	termina	1 aut	horitie	s about	formu.	lated c	argo a	transf	er pl	an via	receiv	o in ord	ler to	recei go tra	ve be	rthing pro-	00
cedures	cedures, facilities, and emergency plan characteristics of port, and to give pertinent information on vessel and cargo	les, and	d emerg	ency	plan ch	aracteri	stics	of por	t, and	d to 8	tve p	ertine	ent in	formatic	no no	vessel	sud .	cargo	

Descriptive: Communicates clearly and concisely and fully understands received information. Numerical: Communicates all necessary, pertinent information re-	<pre>fonal: How to use ship-to-shore communications equipment. How to use and understand terminology related to</pre>
icates clearly and concisely and fully understands ed information. • icates all necessary, pertinent information re-	to use ship-to-shore communications equipment. to use and understand terminology related to
ed information. • icates all necessary, pertinent information re-	to use and understand terminology related to
icates all necessary, pertinent information re-	THE MADEUVERS AND LINE LIAMSTEL OF CHEMICAL
ent information re-	bulk cargo.
lating to ship/cargo characteristics.	and the second state and application of the properties.
• Understands <u>all</u> data received from terminal authorities. • Know cifi	Knowledge of ship and cargo characteristics and specified cargo transfer procedures.
	Knowledge of type and location of communications equipment onboard ship.
•	Knowledge of port facilities including availability
of to	of terminal access equipment, compatibility of ship/ terminal cargo equipment and particular berthing lo- cations, etc.
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TASK CODE: III.A.2	III.A.2								
	WORKER	WORKER FUNCTION LEVEL AND ORIE!	AND ORIENT	TATION		BEABUM	GENERAL	GENERAL EDUCATIONAL DEVELOPMEN	VELOPMENT
DATA	×	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
5A	70	2	20	1	10	2	5	3	7

TASK CODE: III.A.2	III.A.2	60AL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.	hazardous	chemical	liquid b	ulk car	go transfer	operations	safely.	
OBJECTIVE:	Plan cargo transfer operations	sfer operation	18.							
TASK: Formulates can of leakages, spill cargo hazards, shi judgment, in order	TASK. Formulates cargo transfer emergency procedures to be followed and determines personnel to be notified in the event of leakages, spills, overflows, equipment failures, fires, using knowledge of equipment and personnel capabilities, cargo hazards, ship characteristics and layout, existing standard operating procedure on safety regulations, and own judgment, in order to minimize damage and danger during emergency situations and exclude any change of accidental	er emergency ws, equipment ristics and 1s ze damage and	failures, nyout, exis danger du	to be fol fires, us ting stan ring emer	lowed an ing know dard ope gency si	d deter ledge o rating tuation	mines perso f equipment procedure s and exclu	nnel to be n and personn on safety re de any chang	ency procedures to be followed and determines personnel to be notified in the ever pment fallures, fires, using knowledge of equipment and personnel capabilities, and layout, existing standard operating procedure on safety regulations, and own e and danger during emergency situations and exclude any change of accidental	he event les, nd own tal

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
Uses good judgment in establishing procedures in discretionary areas.	• General knowledge of hazards of liquid cargo spills, leakages, overflows and of equipment failures or other
• Establishes effective procedures, commensurate with personnel and equipment capabilities.	emergencies which could affect the safety of cargo (some data in decimals).
• Established procedures are clear and complete.	• General knowledge of company, terminal, and Coast Guard safety regulations relevant to cargo spills and
Numerical: • All established procedures are clear and complete.	How to evaluate capabilities of equipment and personnel used in emergency situations.
《中国的基础》的是一种的一种的基础的基础。	Specific:
AND WARREN TO AND	• Knowledge of specific equipment and personnel available on vessel.
	• Knowledge of standard operating procedures for particular vessel and terminal.
	Knowledge of ship characteristics and layout and usual
(A) 100 100 100 100 100 100 100 100 100 10	lines of communication within ship and between ship and
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	WORKER	FUNCTION LEV	WORKER FUNCTION LEVEL AND ORIENT	TATION		200	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	EVELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
4	88	14	2	1A	10	7	*	3	4
TASK CODE:	III.A.3	•	GOAL: Condu	GOAL: Conduct hazardous	s chemical	liquid	bulk cargo transfer operations safely.	stions safely.	
OBJECTIVE:	Plan car	rgo transfe	Plan cargo transfer operation	18.			esen des contras element element une contras element		
TASK: Read hibi procedur cargo, a	ls/evaluat ltion and e, in ord ind whethe	tes informa stabilizat ler to dete er cargo lo	tion on car ion certifi rmine if su ading shoul	SK. Reads/evaluates information on cargo manifest, she hibition and stabilization certificates), compariprocedure, in order to determine if sufficient informargo, and whether cargo loading should be permitted.	, shipping paring inf formation ted.	Keads/evaluates information on cargo manifest, shipping papers, manufacturer's certificates (such as cargo in- hibition and stabilization certificates), comparing information with criteria specified in standard operating procedure, in order to determine if sufficient information is available for safe transportation of specific chemical cargo, and whether cargo loading should be permitted.	urer's certificates teria specified in s safe transportation	ates (such as in standard (tion of speci	cargo in- operating fic chemical
	200	PERFORMAN	PERFORMANCE STANDARDS				TRAINING CONTENT	ONTENT	
Descriptive:	ve:					Functional:	The first section of the section of	Service Supplied	
• Com	pares iter rough and	Compares items on shipping pathorough and accurate manner.	Compares items on shipping papers thorough and accurate manner.	with criteria in	ria in a	 How to evalueristication transport (How to evaluate shipping data in relation to safety criteria for maintaining cargo stability during transport (some data may be expressed in decimals).	data in relation to sa cargo stability during be expressed in decima	on to safety y during in decimals).
• Dec	isions are	e consister	nt with ava	Decisions are consistent with available information.	rmation.	Specific:	AND SECTION AND SE		
Numerical: Refu	: uses cargo	cal: Refuses cargo loading in all information is provided.	in <u>all</u> case 1.	cases where insufficient	ufficient	• Knowledge specific cl	Knowledge of standard operating procedures for specific chemical cargo carried.	rating proceduring	ures for
						600 to 100 to 10			

MORNER FUNCTION LEVEL AND ORDERTATION WORNER No. FEBRE No. FEBRE NO.	TASK CODE:	III.A.4	4							
TIL.A.4 FERFORMANCE STANDARDS FERFORMANCE STANDARDS THAN XX complaints that plan was incomplete or ccurate. THIN X PEOPLE THINGS THINGS	`\	WORKER	FUNCTION LEVI	EL AND ORIEN	TATION		WORKER	GENERAL	EDUCATIONAL DE	VELOPMENT
TII.A.4 GOAL: Conduct hazardous chemical lique Plan cargo transfer operations. Plan cargo transfer operations. Plan cargo transfer of liquid cargo transfer into or out of varefers to standard operating procedure and vessel's load ir to minimize dangerous conditions and transfer cargo effitive: By transfer plan is complete, accurate, and well anized. Spec ccurate. Spec ccurate.	DATA	×	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
Plan cargo transfer operations. Plan cargo transfer operations. In the sequence of liquid cargo transfer into or out of varieties to standard operating procedure and vessel's load or to minimize dangerous conditions and transfer cargo efficient to minimize dangerous conditions and transfer plan is complete, accurate, and well stransfer plan is complete, accurate, and well set that plan was incomplete or ccurate.	SB	75	14	5	28	20	4	7	4	4
Plan cargo transfer operations. In the sequence of liquid cargo transfer into or out of varieties to standard operating procedure and vessel's load in to minimize dangerous conditions and transfer cargo efficient to minimize dangerous conditions and transfer cargo efficients of transfer plan is complete, accurate, and well anized. Stan XX complaints that plan was incomplete or ccurate.	TASK CODE:	III.A.	,		uct hazardo			transfer oper		
Plans the sequence of liquid cargo transfer into or out of va used, refers to standard operating procedure and vessel's load order to minimize dangerous conditions and transfer cargo efficient to minimize dangerous conditions and transfer cargo efficience of the plan is complete, accurate, and well organized. Erical: Less than XX complaints that plan was incomplete or inaccurate.		Plan cargo	o transfer	operations						
ansfer plan is complete, accurate, and well d. n XX complaints that plan was incomplete or te.	rask: Planbe used, in order	s the sequefers to	uence of 11 o standard ize dangero	lquid carge operating ous conditi	transfer i procedure a ons and tra	nto or out nd vessel' nsfer carg	of various tanks, loading manual an efficiently.	cargo hose lay. Id uses loading	out, pumps an computer (1f	d pipleines to available),
ansfer plan is complete, accurate, and well d. In XX complaints that plan was incomplete or specifie.			PERFORMAN	CE STANDARDS	10 THE R. P. LEWIS		では、一般の変化	TRAINING CO	NTENT	
ansfer plan is complete, accurate, and well d. n XX complaints that plan was incomplete or Specite.	Descripts	ve:					Functional:	· 有限的 1000000000000000000000000000000000000	The State of the S	THE PROPERTY OF
	Cargo organ Numerica	transfer ifzed.	r plan is c	omplete, a	ccurate, an	d well	 How to plan c How to calcul use of a load How to use lo and optimum l stability. 	argo transfer cate vessel tricing computer (adding computer cading plan with	operations. m and stabiliticing alge to compute very the proper ves	ty without the braic concepts). essel stresses sel trim and
 Knowledge of cargo tanks, piping arrangement, cargo pumps, valves, etc. Knowledge of specific chemical cargo's physical and chemical properties and hazards. Knowledge of vessel's loading procedures and factors affecting safety (i.e., rate of cargo transfer, possible mixing of incompatible cargos veright distribution, vessel stability, vessel stresses, amount of time for handling certain cargo and other special precautions). Knowledge of factors affecting trim and stability (free surface effect, sea state, etc.). Knowledge of vessel's loading computer and program input codes to compute optimum loading plan. 	inace	urate.					Specific:			
 Knowledge of vessel's loading procedures and factors affecting safety (i.e., rate of cargo transfer, possible mixing of incompatible cargoes, cargo weight distribution, vessel trim, vessel stability, vessel stresses, amount of time for handling certain cargo and other special precautions). Knowledge of factors affecting trim and stability (free surface effect, sea state, etc.). Knowledge of vessel's loading computer and program input codes to compute optimum loading plan. 	250						 Knowledge of pumps, valves Knowledge of chemical proportion 	cargo tanks, p. , etc. specific chemic	Iping arrange cal cargo's p	ment, cargo hysical and
sible mixing of incompatible cargoes, cargo weight distribution, vessel trim, vessel stability, vessel stresses, amount of time for handling certain cargo and other special precautions). Nowledge of factors affecting trim and stability (free surface effect, sea state, etc.). Knowledge of vessel's loading computer and program input codes to compute optimum loading plan.	Santa Hast						Knowledge of affecting safe	vessel's loadin	ng procedures	and factors
special precautions). • Knowledge of factors affecting trim and stability (free surface effect, sea state, etc.). • Knowledge of vessel's loading computer and program input codes to compute optimum loading plan.						R of Care of Care	sible mixing tribution, ve ses, amount o	of incompatible ssel trim, vest f time for hand	e cargoes, ca sel stability iling certain	rgo weight dis- , vessel stres- cargo and other
<pre>(free surface effect, sea state, etc.). • Knowledge of vessel's loading computer and program input codes to compute optimum loading plan.</pre>							special preca • Knowledge of	iutions). factors affect	ing trim and	stability
input codes to compute optimum loading plan.	2.60						(free surface Knowledge of	effect, sea si vessel's loadin	tate, etc.).	nd program
							input codes t	o compute optim	mum loading p	lan.
	3 F. DAY 129-20-									

SK CODE:	TASK CODE: III.A.5								
	WORKER	WORKER FUNCTION LEVEL AND ORIENT	AND ORIENT	TATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMEN	VELOPMENT
DATA	×	PEOPLE	*	SONIHL	*	INSTRUCTIONS	REASONING	MATH	TANGUAGE
4	75	1A	5	1A	20	4	7	3	7

	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	L AND ORIEN	TATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT	30 17
DATA	*	374034	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE	
7	75	1.4	5	1A	20	7	7	3	7	ALL SE
TASK CODE:	III.A.5		GOAL: Cond	uct hazardou	s chemica	GOAL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.	transfer opera	itions safely		
OBJECTIVE:	Plan	Plan cargo transfer operations.	fer opera	tions.						
TASK: Plan areas, fo from reac mixing of	s chemics llowing s ting with incompat	ASK: Plans chemical cargo separation scheme, areas, following standard operating procedure from reacting with sources of ignition, toxic mixing of incompatible cargoes and materials.	eration strating pringing ignition and mate	cheme, ensur ocedure and , toxic vapo erials.	es reactiusing own	TASK: Plans chemical cargo separation scheme, ensures reactive chemical cargoes are adequately separated from hazardous areas, following standard operating procedure and using own judgment and knowledge in order to prevent flammable vapors from reacting with sources of ignition, toxic vapor contamination of sensitive areas, and dangerous accidental mixing of incompatible cargoes and materials.	are adequately edge in order t areas, and dan	y separated f to prevent fl ngerous accid	rom hazardous ammable vapors ental	The state of the state of the state of

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	TENTONMANCE STANDANDS	
1-49	Descriptive: • Cargo separation plan is complete, accurate and well organized.	Functional: • How to plan safe cargo separation schemes using inert vessel spaces and systems.
	Numerical:	Specific:
	• In all cases, flammable chemical cargo is separated from vessel machinery and boiler spaces, accommodadation and service spaces.	• Knowledge of vessel's inert spaces to be used for separation (i.e., cofferdams, void spaces, pump rooms, or other similar spaces).
	• In all cases, toxic chemical cargo is separated from vessel accommodation and service spaces, drinking water and stores for human consumption.	• Knowledge of standard operating procedures, requiring the use of separate pumping, piping and vents for certain chemical cargoes.

arat or o	Know	cert	Know	Suci
aration (i.e., cofferdams, void spaces, pump rooms, or other similar spaces).	Knowledge of standard operating procedures, requiring the use of separate pumping, piping and vents for	certain chemical cargoes.	Knowledge of vessel's tanks containing water (e.g., slop tanks, ballast tanks and pumps and lines serving	Sucil Caliks).
ferdams, paces).	ard oper	argoes.	1's tank t tanks	
void	ating 8, pig		s cont	
spaces	proced		aining mps an	
dund .	ures, d vent		water d line	
rooms,	requiring s for		(e.g., s servin	

In all cases, where chemical cargo is dangerously reactive with other cargoes and/or water, adequate separation is provided.

•	 Knowledge of Layout of Vessel's spaces, piping, pumps, vents, etc. 	one or	ressev.	s spaces,	piping, pumps,
•	Knowledge of specific chemical cargo's hazardous	ecific	chemical	cargo's	hazardous
	properties (1.e., reactivity with other cargo/water,	., reac	tivity w	Ith other	cargo/water,
	flammability, an	toigni	tion tem	erature,	flammability, autoignition temperature, toxicity, etc.).

TASK CODE: III.A.6	III.A.6								
	WORKER	WORKER FUNCTION LEVEL AND ORIENTA	AND ORIENT	TATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	THINGS	%	INSTRUCTIONS	REASONING	MATH	LANGUAGE
7	25	5	70	18	2	4	7 - 1 - 7	2	7 8 3 3 3 3

OBJECTIVE: Plan cargo transfer operations. TASK: Selects and determines the number of crew the basis of observable behavior anyone under wise physically or mentally incapable of perfo	NECTIVE: Plan cargo transfer operations. NSK: Selects and determines the number of crew members needed to perform the cargo transfer operation, selecting out on the basis of observable behavior anyone under the influence of liquor or other stimulant or anyone who is ill or other.
TASK: Selects and determines the number of crew the basis of observable behavior anyone under wise physically or mentally incapable of perfo	of crew members needed to perform the cargo transfer operation, selecting out on e under the influence of liquor or other stimulant or anyone who is ill or other-
work details to them, following standard operating procedure, using	wise physically or mentally incapable of performing his assigned duties, checks documented qualifications and describes work details to them, following standard operating procedure, using own judgment in order to ensure sufficient personnel
PERFORMANCE STANDARDS	TRAINING CONTENT

Selects sufficient number of qualified crew members. Communicates task details clearly to crew members.

In all cases there is sufficient number of people to perform cargo transfer operations. Numerical:

mentaily incapable of performing assigned tasks.

Fewer than X% of persons selected are physically or

All documents relating to personnel qualifications are checked for accuracy.

onal:

- How to determine sufficient number of qualified crew members to perform tasks.
- How to judge capabilities of dockside manpower to handle cargo safely.
- How to communicate task details.

Specific:

- Knowledge of work to be done.
- Capabilities of personnel performing cargo transfer operations.
- Knowledge of specific standard operating procedures.

TASK CC	306:	FASK CODE: III.B.1	GOAL:		ct ha	zardon	s chem	ical 1	pinbi	bulk	transfe	er ope	ration	Conduct hazardous chemical liquid bulk transfer operations safely.				
OBJECTIVE:	IVE:	Install necessary equipment for cargo transfer operations	equipm	ent fo	r car	go tra	nsfer	operat	ions.									
TASK:	Dire	FASK: Directs personnel in the installation of necessary equipment for vessel cargo transfer operations, following standard operating procedure, using own judgment and knowledge of cargo transfer operations and related equi	e inst	allati	on of	neces	sary e	quipme d know	nt for	vess of ca	el carg	go tra	nsfer	llation of necessary equipment for vessel cargo transfer operations, following using own judgment and knowledge of cargo transfer operations and related equip-	ns, fol	llowing	g dip-	CONTRACTOR OF THE PARTY OF THE
men	t, ar	ment, and using onboard communications equipment when necessary, in order to ensure that cargo transfer equipment is	munica	tions	eduip	ment w	hen ne	cessar	y, tn	order	to en	sure t	hat ca	go trans	sfer ec	quipmen	at is	

Directs personnel effectively, correctly, safely. Directs personnel effectively, correctly, safely. Ensures that installations are completed correctly and according to standard operating procedure. Maintains effective communication with personnel. Pewer than XX of cases maintain that communication is ineffective. Ensures that installations are completed correctly and according to standard operations are completed correctly and according to standard operations are communication. English the installation of cargo transfer operations of equipment commonly associated with the installation of cargo transfer operations. English the installations of cargo transfer operations are compounded associated with the installation of cargo transfer operations. English the installations are compounded or cargo transfer operations of particular cargo transfer operations. English the installation of cargo transfer operations are compounded or cargo transfer operations. English the installation of cargo transfer operations are cargo transfer operations. English the installation of cargo transfer operations.	PERFORMANCE STANDARDS	TRAINING CONTENT
s personnel effectively, correctly, safely. s that installations are completed correctly cording to standard operating procedure. ood judgment in discretionary areas. ins effective communication with personnel. than XX of cases maintain that communication ffective.	Descriptive:	Functional:
s that installations are completed correctly cording to standard operating procedure. ood judgment in discretionary areas. ins effective communication with personnel. than XX of cases maintain that communication ffective.	 Directs personnel effectively, correctly, safely. 	General knowledge of cargo transfer operations and
ood judgment in discretionary areas. ins effective communication with personnel. than XX of cases maintain that communication ffective.	 Ensures that installations are completed correctly and according to standard operating procedure. 	 equipment used in such operations. General knowledge of hazards and problems commonly
ins effective communication with personnel. than XX of cases maintain that communication ffective.		associated with the installation of cargo transfer equipment.
than XX of cases maintain that communication ffective.	• Maintains effective communication with personnel.	How to supervise and communicate with shipboard
Spec	Numerical:	personnel.
• • • • • • • • • • • • • • • • • • •		 How to identify equipment used in cargo transfer operations.
The state of the s		Specific:
A PROCESSION OF STATE		 Knowledge of specific standard operating procedures involved.
A PROCESSOR OF SAME OF STRONG STRONG		• Knowledge of properties and hazards of particular
ABBOCADINE SELECT SIZE SELECTION COLUMN		cargo being transferred and carried. Knowledge of specific kinds of equipment required
是一个时间,我们就是一个时间,我们就是一个时间,我们就是一个时间,我们就是一个时间,我们就是一个时间,我们也是一个时间,我们们是一个时间,我们们是一个时间,也可以		for transfer operations.
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TASK CODE:	III.B.2	.2							
	WORKER	VORKER FUNCTION LEVEL AND ORIEN	L AND ORIEN	TATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	31d03d	*	SONIHI	%	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	20	V I	5	2A	7.5	2	2	3	7

DELECTIVE: DELECTIVE: Ins TASK: Connected to the cargo tank	III.B.2 tall necessary estrained property or hose ship's tackle an vents and shore	TASK CODE: III.B.2 GOAL: Conduct hazardous chemical liquid bulk cargo transfer operations safely. OBJECTIVE: Install necessary equipment for cargo transfer operations. TASK: Connects piping or hose to vessel's vent piping and shoreside vapor recovery piping using available tools and equipment, ship's tackle and other lifting gear; aligns vapor return subsystem (opens, closes valves) between vessel cargo tank vents and shore facilities, following standard operating procedure, in order to reclaim vapors during the
transfer of	transfer of a specific chemical cargo.	ical cargo.

PERFORMANCE STANDARDS	100 Park 200 Park 200 Park	TRAINING CONTENT
Descriptive: • Equipment is properly set up.	Functional: How to open an	tional: How to open and close valves.
 Arrangement is completed accurately and thoroughly according to specified procedures. 	How to connect piping. How to read and follow	How to connect piping. How to read and follow prescribed procedures.
Numerical:	Specific:	
 Fewer than X complaints that equipment was not set up according to specified procedures. 	• Knowledge of v (piping, valve	Knowledge of vessel's cargo vapor return subsystem (piping, valves, pipe flanges, vent pipes, etc.).
	• Knowledge of specific ship's tackle, etc.).	Knowledge of specific tools and equipment (wrenches, ship's tackle, etc.).
	• Knowledge of s	Knowledge of specific procedures.
	• Knowledge of h cargoes (e.g.,	Knowledge of hazardous properties of specific chemical cargoes (e.g., toxicity, etc.).
	185.181018185	

TASK CODE:	III.B.3	3							
	WORKER	WORKER FUNCTION LEVEL	AND ORIENTATION	TATION		MODINED	GENERA	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMEN
DATA	*	314034	*	SONIHL	*	INSTRUCTIONS	REASONING	MATH	LANGU
2	20	1A	5	2A	7.5	2	2	1	

TASK CODE:	III.B.3	60AL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.
OBJECTIVE:	Install necessary e	Install necessary equipment for cargo transfer operations.
TASK: Aligorated participations and tools are tools and tools and tools and tools and tools are tools and tools and tools and tools are tools and tools and tools are tools and tools are tools and tools are tools and tools are tools are tools and tools are	ASK: Aligns (manually turns valve wi correct position with rope lashings tools and equipment in order to clos	CORRECT POSITION WITH TOPE LASHINGS OF OTHER SUITABLE MEALS VAIVE WHEELS OF ALL SEA AND BALLAST VAIVES IN THEIR CORRECT POSITION WITH TOPE LASHINGS OF OTHER SUITABLE MEANS FOLLOWING STANDARD OPERATING PROCEDURE, USING AVAILABLE TOOLS AND EQUIPMENT IN ORDER TO CLOSE SEA AND BALLAST VAIVES THAT ARE CONNECTED TO THE CARGO PIPING SYSTEM AND AVOID LABBAGE OF CARGO TO THE CARGO PIPING SYSTEM AND AVOID LABBAGE OF CARGO TO THE CARGO PARTICLE.

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
 Equipment is properly set up. 	• General knowledge of sea and ballast valve arrangement aboard vessels.
 Arrangement is completed thoroughly according to specified procedures. 	How to align and seal sea and ballast valves. How to read standard operating procedures.
Numerical:	Specific:
• All sea and ballast valves that are connected to cargo piping system are closed in all cases of hazardous chemical cargo transfer.	 Knowledge of specific sea and ballast valve locations. Knowledge of specific chemical cargo and hazardous properties.
South Hardana of Contains the Same Same Same Same Same Same Same Sam	Knowledge of specific cargo piping system. Knowledge of specific standard operating procedures.
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TASK CODE:	III.B.4	4							
	WORKER	WORKER FUNCTION LEVEL AND ORIEN	AND ORIEN	TATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	SONIHL	%	INSTRUCTIONS	REASONING	MATH	LANGUAGE
2	20	1A	5	2A	75	2	2	2	3

OMNECTIVE: Install necessary equipment for cargo transfer operations safely. OMNECTIVE: Install necessary equipment for cargo transfer operations. TASK: Sets up fire fighting equipment: (makes accessible fully charged portable fire extinguishers, uncoils and connects fire hose to firemain, ensures foam or dry powder monitors are operable and fire pump is placed in standby condition) according to standard operating procedure and with reference to vessel's certificate of inspection specifying the minimum amount of equipment required in order to have fire fighting equipment ready and operable before cargo transfer operations performance of any operable before cargo transfer operations Descriptive: Beguipment is properly set up. Arrangement is completed according to requirements. Whenerical: OMNECTIVE: Install necessary equipment for cargo transfer operations and connects and connects and connects and connects are operable fire fighting equipment. Functional: OMNECTIVE: OMNECTIVE:					
		TASK CODE:	III.B.4	GOAL: Conduct hazardous chemical	liquid bulk cargo transfer operations safely.
		OBJECTIVE:	Install necessar	ry equipment for cargo transfer o	perations.
Descriptive: • Equipment is properly set up. • Arrangement is completed according to requirements. Numerical:		TASK: Sets ufire hose taccording tamount of e	ip fire fighting e to firemain, ensur to standard operat	equipment (makes accessible fully res foam or dry powder monitors a ing procedure and with reference in order to have fire fighting	charged portable fire extinguishers, uncoils and connects re operable and fire pump is placed in standby condition) to vessel's certificate of inspection specifying the minimum equipment ready and operable before cargo transfer operations
Descriptive: • Equipment is properly set up. • Arrangement is completed according to requirements. • Numerical:		2.0	PERFORMAN	NCE STANDARDS	185 20 20 20 20 20 20 20 20 20 20 20 20 20
	J-54	Desc Nume	int is properly sement is completed	rding	Functional: • How to set up and make accessible fire fighting equipment. • How to read standard operating procedures.

Knowledge of specific standard operating procedures. Knowledge of vessel's certificate of inspection.

Specific:

In all cases, required fire extinguishing equipment is set up according to requirements.

Knowledge of vessel's fire fighting equipment.

	/ELOPMENT	LANGUAGE	2
	GENERAL EDUCATIONAL DEVELOPMENT	MATH	1
	GENERAL	REASONING	1
	WARKER	INSTRUCTIONS	1
		*	2.2
	NTATION	THINGS	2A
	AND ORIENT	*	2
	JORKER FUNCTION LEVEL AND ORIEN	PEOPLE	1A
III.B.5	WORKER	*	20
TASK CODE: III.B.5		DATA	1

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	GOAL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.	
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OBJECTIVE:

Install necessary equipment for cargo transfer operations.

ASK: Connects a water hose with pressure to the nozzle (connects hose to firemain and opens firemain valve), following standard operating procedure, using available tools (wrenches, etc.), in order to ensure a sufficient water supply to wash away small spills of a specific chemical cargo during cargo transfer operations. TASK:

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
• Equipment is properly connected.	How to connect and pressurize water hose.
• Arrangements completed thoroughly according to instruments.	<u>Specific:</u>
Numerical:	Knowledge of prescribed procedures for connecting water hose.
Water hose is connected in <u>all</u> cases of specific chemical cargo transfer.	 Knowledge of water hose, firemain, piping system, etc. Knowledge of hazardous properties of specific cargo.
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TASK CODE: III.B.6	III.B.6								
	WORKER	WORKER FUNCTION LEVEL AND ORIENT	L AND ORI	ENTATION		83.80M	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	EVELOPMENT
DATA	×	PEOPLE	*	THINGS	×	INSTRUCTIONS	REASONING	MATH	LANGUAGE
2	35	1A	2	2A	09	2	2	1	2
TASK CODE: III.B.6	111.B.6		GOAL: C	nduct hazardo	us chemica	60AL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.	o transfer oper	ations safely	9.

TASK: Places warning signs (red flag, red electric lantern, warning and chemical information placards), following standard operating procedure, in order to visibly warn personnel that flammable, combustible and other dangerous liquid cargo is being transferred.

Install necessary equipment for cargo transfer operations.

OBJECTIVE:

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
 Warning signs are properly set up. 	How to set up warning signs.
 Location of warning signs are in accordance with standard operating procedures. 	Specific:
Numerical:	Knowledge of standard operating procedures for the display of warning signs.
• Warning signs are set up in proper location in all cases.	
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ASK CODE:	III.B.7	7								
	WORKER	WORKER FUNCTION LEVEL AND ORIEN	AND ORIEN	ITATION		BEABUM	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT	1200
DATA	*	PEOPLE	×	THINGS	*	INSTRUCTIONS	REASONING	MATH	TANGUAGE	A. A
3A	08	1.4	5	1A	15	6	2	3	2	THE STATE

Conduct hazardous chemical liquid bulk cargo transfer operations safely.	entre A.	for ship's tackle (rope and pulley assembly), if needed, to support cargo hose, order to ensure sufficient tackles are used.	TRAINING CONTENT	
rrdous chemical liquid bulk co	go transfer operations.	or ship's tackle (rope and pulley assembly), order to ensure sufficient tackles are used		Functional:
III.B.7 60AL:	Install necessary equipment for cargo transfer operations.	TASK: Calculates weights involved for ship's tausing own judgment and knowledge in order to ens	PERFORMANCE STANDARDS	<u>ive</u> :
TASK CODE:	OBJECTIVE:	TASK: (using ow		Descriptive:

PERFORMANCE STANDARDS	TRAINING CONTENT	
Descriptive:	Functional:	Andrews Andress and the
 Weight estimates are accurate and completed with reasonable speed. 	How to estimate equipment weight.	it.
Numerical:	Specific:	
Retimates are sufficiently accurate to insure adequate cargo hose support in all cases.	 Knowledge of specific cargo hose used in cargo transfer. Knowledge of and location of specific ship's 	e used in cargo ecific ship's
TOTAL TOTAL TOTAL SECTION STATE SECTION SECTIO	tackle.	
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(a) (a) (a) (b) (b) (b) (b) (a) (b) (b) (a) (b) (b) (b) (b) (b) (b) (b) (b) (b) (b	CANONICATION AND MAN TOWNS THE STATE OF THE	

TASK CODE: III.B.8	III.B.8								
	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	AND ORIEN	TATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	SONIHL	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
2	20	1A	\$	2A	75	2	2	1	4

TASK CODE: III.B.	111.8.8	GOAL:	Conduct	IAL: Conduct hazardous chemical bulk cargo transfer operations safely.	hemical bul	k cargo	transfer	operations	safely.	
OBJECTIVE:	Install necessary equipment for cargo transfer operations.	equipmen	at for ca	argo transfe	r operation	18.				

TASK: Connects electrical bonding wire between tank vessel and shore piping (through which liquid cargo is to be transferred) before connecting cargo hose, following standard operating procedure, and using available tools and equipment, in order to provide a path to ground for stray currents generated during cargo transfer.

PERFORMANCE STANDARDS	TRAINING CONTENT
- Descriptive:	Functional:
• Equipment is properly set up.	General knowledge of tanker safety practices (e.g., International Oil Tanker and Terminal Safety Guide).
 Arrangement is completed thoroughly according to specified procedures. 	How to read instructions for setting up equipment. How to read standard operating procedures.
Numerical:	Specific:
 No complaints that equipment was not set up according to specified procedures. 	How to connect electrical bonding wire to specific terminal piping and vessel.
granes, accessing ofuriants ofuriants the relationship the	Knowledge of specific standard operating procedures (i.e., connects wire before cargo hose is connected, before connecting wire to vessel en-
Acceptable epithopass duckness and the T. A. 141 Augustas	sures wire switch is open, closes switch arter connection is made).
Market Trees, W. St. St. St. St. St. St. St. St. St. St	A STATE OF THE PROPERTY OF THE
WORKS STRINGS AND STRINGS AND STRINGS OF THE STRING	

DATA	WORKER	FUNCTION LEV	WORKER FUNCTION LEVEL AND ORIENTAT	TATION		25,000	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	/ELOPMENT
	×	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
-	20	1.4	5	14	75	1	1	1	2
TASK CODE:	111.8.9		60AL: Conduct		s chemical	hazardous chemical liquid bulk cargo	transfer	operations safely.	8.00
OBJECTIVE: TASK: Instants ava	Instal ralls plu	l necessar gs in vess ols and eq	MASK: Install necessary equipment fask: Installs plugs in vessel scuppers (using available tools and equipment, in o	for ca (deck order	transfer c ings) befor revent any	or cargo transfer operations. (deck openings) before cargo transfer, following standard operating proceder to prevent any accidental spill or overflow from running overboard.	following standard operating procedure, or overflow from running overboard.	ndard operatin	g procedure,
	and an and	PERFORMAN	PERFORMANCE STANDARDS			# 0.000 SUCTOR	TRAINING CONTENT	ONTENT	
Descriptive:	ive:	State of Sta				Functional:			
• Plug. Numerical:	igs are pr	Plugs are properly installed.	talled.			How to ins How to res	How to install scupper plugs. How to read instructions.	lugs.	
1	scuppers	are prope	All scuppers are properly plugged.			Specific: • Knowledge of • Knowledge of	standard	l operating proced locations.	lures.
						Ly Application			
				4.5					
						ACTION OF THE PROPERTY OF THE			

	WORKER	WORKER FUNCTION LEVEL AND OR	. AND ORIEN	HENTATION		WORKER	GENERA	GENERAL EDUCATIONAL DEVELOPMENT	/ELOPMENT
DATA	×	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	МАТН	LANGUAGE
38	20	1.	2	2A	75	2	2	3	2

TASK CODE:	111.8.10	09	AL: CO	nduct	hazardo	us cher	mical	liquid	bulk ca	argo ti	ransfer	Conduct hazardous chemical liquid bulk cargo transfer operations safely.	s safely	у.	
OLECTIVE:	Install necessary equipment for cargo transfer operations.	sary e	quipme	at for	cargo	transf	er ope	rations							

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wing standard operating procedure, using available tools and equipment, in order to	
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npa	fer
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pr	tra
ing	80
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obe	fe
PJ	piping for safe cargo transfer
ıdaı	For
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ing stan	pfn.
win	
110	ore
fo	sh
cargo hose followi	to
o h	Ling
rg	di
Ca	7
00	connect vessel piping to shore
onnect	Ve
-	ect
	ă
FASK:	

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
Equipment is properly connected.	How to read instructions for setting up equipment.
Arrangements completed thoroughly, according to instructions.	How to connect cargo hose equipment.
是在1966年1月1日,在1966年1月1日,1966年1月日,1966年1月,1966年1月,1966年1月日,1966年1月,1	Specific:
Numerical:	Knowledge of standard operating procedures for
• Cargo hose connections are properly made in all cases.	connecting cargo hose (i.e., making allowance for vessel movement, using properly gasketed flange joints and bolted tight with at least 3 bolts, properly supports hose, places pans or buckets under cargo hose
negation of the control of the contr	connections aboard vessel, sets up shields around flanges of manifold connections to guard against cargo spray of certain chemicals such as acids).
THE RESERVE TO STREET, THE PARTY OF THE PART	• Knowledge of specific cargo hose, cargo piping, terminal piping, etc.
	• Knowledge of specific chemical cargo's hazards (acidity, etc.).
STATE STATE OF THE	The section of the se
東西では10年間には、数様の上海東京は10円では10円であっている。	

ASK CODE:	III.C.1								
	WORKER	NORKER FUNCTION LEVEL AND ORIENT	AND ORIEN	FATION		asalaum	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	×	SONIHL	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	06	1A	2	1.8	5	3	3	2	3

TASK CODE: III.C.1		60AL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.	
OBJECTIVE:	Inspect ship and	Inspect ship and shoreside conditions prior to cargo transfer.	
TASK: Insp to be load cargo info	to be loaded, to make note of any special cargo information cards for the chemical	to be loaded, to make note of any special loading restrictions; checks for display of required warning signs and sees that cargo information cards for the chemical cargo are aboard and other specified items according to check list, using own thindenest and knowledge in order to ensure safe conditions and other pacifies items according to check list, using own	

TRAINING CONTENT	Functional: • How to inspect hardware items. • How to detect unsafe conditions.	• How to read certificate of inspection. Specific:	 Knowledge of specific check list. Knowledge of vessel's certificate of inspection, warning signs, chemical cargo information cards. 	 Knowledge of specific chemical cargo to be loaded. 		A STATE OF THE STA	THE THE PERSON AND THE PERSON OF THE PERSON	
PERFORMANCE STANDARDS	Descriptive:	All specified items are inspected. In all cases, detects unsafe conditions when they	The state of the s			The second secon		

MONTHER FUNCTION LEVEL AND ORIENTATION NOTICE STATE STATE	TASK CODE:	III.C.2								
## PEOPLE		WORKER	UNCTION LEVE	EL AND ORIEN	TATION		WORKER	GENERAL	EDUCATIONAL DE	VELOPMENT
III.C.2 GOAL: Conduct hazardous chemical Inspect ship and shoreside conditions prior to ca spects visually cargo tank's gaging device, according re instrumentation is in proper operating order for a pletes inspection in a thorough and accurate ner. al: al: al: cases involving the handling of grade A mmable chemical liquid cargo, inspects cargo k's gaging device.	DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
III.C.2 Inspect ship and shoreside conditions prior to ca spects visually cargo tank's gaging device, according re instrumentation is in proper operating order for a pletes inspection in a thorough and accurate ner. ### PERFORMANCE STANDARDS #### Cases involving the handling of grade A mmable chemical liquid cargo, inspects cargo k's gaging device.	38	06	1A	5	18	5	3	3	2	3
TASK: Inspects visually cargo tank's gaging device, according to ensure instrumentation is in proper operating order for a bescriptive: • Completes inspection in a thorough and accurate manner. Numerical: • In all cases involving the handling of grade A flammable chemical liquid cargo, inspects cargo tank's gaging device.	TASK CODE:	III.C.2			duct hazardo		liquid bulk			
TASK: Inspects visually cargo tank's gaging device, according to ensure instrumentation is in proper operating order for a Descriptive: • Completes inspection in a thorough and accurate manner. Numerical: • In all cases involving the handling of grade A flammable chemical liquid cargo, inspects cargo tank's gaging device.	OBJECTIVE:	Inspec	t ship and	shoreside	\$6 \$15,000 to 1,000		argo transfer.	SANCE SEE SERVE	on ogstan Lan	a Depth policy and
PERFORMANCE STANDARDS tes inspection in a thorough and accurate cases involving the handling of grade A ble chemical liquid cargo, inspects cargo gaging device.	1 2	pects visu	ally cargo ntation is	tank's ga		according rder for		ing own judgmer chemical cargo	nt and knowled	lge, in order
Descriptive: Completes inspection in a thorough and accurate manner. Numerical: In all cases involving the handling of grade A flammable chemical liquid cargo, inspects cargo tank's gaging device.	# W		PERFORMANC	E STANDARD	6	1	STATE OF STA	TRAINING CO	WTENT	
cases involving the handling of grade A ble chemical liquid cargo, inspects cargo gaging device.	Desc	lve: Letes inspar.	ection in	a thorough		ď	Functional: • How to inspec	ct liquid level	l measuring ir	ıstrument.
	Numerica	ī	SPACE CHEEN SAME				Specific:			
• Knowledge of check list.	• In a flam flam tank	11 cases i mable chem 's gaging	nvolving ti ical liquid device.	he handlir d cargo, 1	ng of grade A Inspects carg		Knowledge of Knowledge of grade A chem	f cargo tank's E hazardous pro nical liquid ca	gaging device operties of fl orgo.	e. Lammable
	And the second						Knowledge of	f check list.		
	1422 CONT.						Tractic service of the			
					100					
	BANK						SAME BUILDED BUILDE	Spin-Silven		
ANNUAL CONTROL OF THE										
	Asset drags									

DATA % 2 55 TASK CODE: III.C.3 DESCRIPTIVE: Inspectors visual personnel are not personnel are not descriptive:	7A % PEOPLE % THINGS 1 55 2 35 1A 1 ODE: III.C.3 GOAL: Conduct hazardous characters wisually personnel aboard ship following sonnel are not onboard, and that authorized personn riptive: Completes check in a thorough and accurate manner. Communicates clearly with personnel.	ship and shoreside of personnel aboard slaboard and that autilities. PERFORMANCE STANDARDS In a thorough and active active and active activ	35 THINGS 35 1A GOAL: Conduct hazardous shoreside conditions produced that authorized persond that authorized persongh and accurate manners.	chemical chemical dor to ca standard nnnel do r	2 55 2 35 1A 10 3 3 3 1A 10 10 10 10 10 10 10 10 10 10 10 10 10	TRAINING CONTENT TRAINING CONTENT	Easoning MATH LANGE 3 2 3 3 sefer operations safely. In order to ensure unauthorized king. TRAINING CONTENT	LANGUAGE 3
2 55 TASK CODE: III.C. OBJECTIVE: Inspe Personnel are not Descriptive:	3 3 3 11 personne t onboard, an PERFORMANC clearly with	35 GDAL: Conductor Shoreside (a that autiliar au	t hazardous conditions pr	chemical chemical for to cg standar mnel do r	1iquid bulk cargo rgo transfer. operating procedu ot board ship when Functional: • How to check	transfer operat transfer operat ire, in order to smoking. TRAINING COI for and identif	:ions safely. censure unau	3 ithorized
DESCRIPTION: Inspective: Descriptive:	ect ship and ally personne onboard, an eck in a thor clearly with	shoreside (shoreside dathat autiestandabs)	t hazardous conditions pr ip following norized perso	chemical for to cannot be standard munel do r	rgo transfer. operating procedu ot board ship when Functional: • How to check	transfer operative, in order to remoking. TRAINING COLUMNING COLU	ions safely. ensure unau	ithorized
Insperior Insperior Checks visus personnel are not Descriptive:	illy personne: onboard, and PERFORMANC	shoreside of that autiest and a second and a	onditions propriet following to solized person to solized person to solized person to solized to solize the solized to solize the solized to solized to solize the solized to solized the solized	for to cannot do remain do	rgo transfer. operating procedu ot board ship when Functional: • How to check	ire, in order to smoking. TRAINING CO	ensure unau	ithorized
TASK: Checks visua personnel are not Descriptive:	illy personne: onboard, an PERFORMANC eck in a thor clearly with	d that auti	orized personalized personalize	standard mnel do r	operating proceduot board ship when Functional: • How to check	smoking. TRAINING CO	ensure unau	ithorized
Descriptive:	PERFORMANC eck in a thor clearly with	E STANDARDS	ccurate mann	er.	Functional: • How to check	TRAINING COL	NTENT	
Descriptive:	eck in a thor clearly with	ough and a	ccurate mann	ä	Functional: • How to check	for and identif		
	ack in a thorcelearly with	e pue ugno.	ccurate mann	er.	How to check	for and identify		
• Communicates check in a thorough and ac • Communicates clearly with personnel.		personnel			Specific:		fy unauthori	sed personne
Numerical:					• Knowledge of	Knowledge of authorized personnel	sonnel.	
Ensures unaut and authorize smoking.	Ensures unauthorized personnel are not onboard ship, and authorized personnel do not board ship while smoking.	do not boa	not onboard a	ship,				
A PARTY TO STANK								
						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
	7, 1979			188				

TASK CODE:	III.C.4	4							
	WORKER	JORKER FUNCTION LEVEL AND ORIENTATION	L AND ORIEN	TATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	06	1.8	5	¥1	5	3	3	8	3

	Inspect ship and shoreside conditions prior to cargo transfer.	TASK: Inspects fire hoses and hose connections, fire monitors (if fitted), the placement, readiness, and accessibility of portable fire extinguishers, standby pumps, and other appropriate or required fire fighting equipment, according to check list, and using own judgment in order to ensure that fire fighting equipment is ready and accessible for use in emergency situations.
A 7 111	ONIECTIVE: Inspect ship and	ASK: Inspects fire hoses of portable fire extinguto to check list, and using in emergency situations.

	PERFORMANCE STANDARDS	STREET STREET TRAINING CONTENT
J-6	Descriptive:	Functional:
4	• Completes inspection in a thorough and accurate manner.	 How to inspect fire hoses, pumps, extinguishers, and other common pieces of fire fighting equipment.
ud _{a di}	Numerical:	How to read, interpret safety regulations.
	 Ensures all appropriate and fire fighting equipment is ready and accessible. 	 How to detect unsafe conditions relating to lack of or inaccessibility of fire fighting equipment.
		Specific:
		 Knowledge of type and location of specific fire fighting equipment onboard ship.
		 Knowledge of specific check lists for the preparation and readiness of fire fighting equipment.
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	DATA	*	PEOPLE	*	THINGS	%	INSTRUCTIONS	REASONING	MATH	LANGUAGE

OBJECTIVE:	TASK CODE:	III.C.	.5	GOAL:	Conduct	hazardous	chemical	liquid	bulk ca	rgo transf	OAL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.	safely.	
	OBJECTIVE:												

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lves connected to cargo piping and ship pipelines, according to check list, using own	
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18	er to ensure sea valves are closed and pipelines are blanked.
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ar	17
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Va	rd
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Descriptive: Completes inspection in a thorough and accurate manner. Numerical: In all cases, sea valves that are connected to cargo piping system are closed prior to transfer of cargo and pipelines not in use are blanked. Knowledge of cargo piping system. Knowledge of check list.	PERFORMANCE STANDARDS	TRAINING CONTENT
cases, sea valves that are connected to cargo system are closed prior to transfer of cargo pelines not in use are blanked.	Descriptive: Completes inspection in a thorough manner.	Functional: • How to examine sea valves and pipelines, and determine whether they are open, closed, or blanked.
nected to cargo	Numerical:	Specific:
	• In all cases, sea valves that are connected to cargo piping system are closed prior to transfer of cargo and pipelines not in use are blanked.	 Knowledge of sea valves and their location aboard ship.
	ACTION OF THE PROPERTY OF THE	Knowledge of cargo piping system.
	the state of the s	• Knowledge of check list.
	Contraction of the Contraction o	
	SECTION OF THE PROPERTY OF THE	Marie Ma
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TASK CODE:	111.C.6	9.								
	WORKER	JORKER FUNCTION LEVEL AND ORIEN	L AND ORIEN	ITATION		DAGOM	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT	
DATA	*	PEOPLE	%	THINGS	%	INSTRUCTIONS	REASONING	MATH	LANGUAGE	
2	06	14	2	14	5	2	6	,	,	

TASK CODE: III.C.6	GOAL: Conduct hazardous chem	ical liquid bulk cargo	GOAL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.
OBJECTIVE:			
Inspect snip and snoresid	and snoreside conditions prior to cargo transfer.	to cargo transfer.	
TASK: Inspects artificial operational and accessible	FASK: Inspects artificial light sources, according to check list, in order to ensure that adequate operational and accessible for nighttime ship-to-shore connections and cargo transfer operations.	ck list, in order to en onnections and cargo tr	TASK: Inspects artificial light sources, according to check list, in order to ensure that adequate, safe lighting is operational and accessible for nighttime ship-to-shore connections and cargo transfer operations.
	PERFORMANCE STANDARDS	A STATE OF S	TRAINING CONTENT
Descriptive:		Functional:	
• Completes inspection manner.	Completes inspection in a thorough and accurate manner.	How to inspecadency.	How to inspect lighting equipment for safety and adequacy.
Numerical:		Specific:	
• Inspects all light sa	Inspects all light sources for adequacy and safety.	• Knowledge of type an ment onboard vessel.	Knowledge of type and location of lighting equipment onboard vessel.
A Property Language Communication		Knowledge of used on parti	Knowledge of location of work stations and procedures used on particular vessel for particular cargo type.
The second of th		• Knowledge of check list.	check list.
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TASK CODE: III.C.7	111.C.7								
	WORKER	WORKER FUNCTION LEVEL AND ORIE!	AND ORIEN	NTATION		WAREB	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	×	THINGS	%	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	96	1.4	2	1.4	2	3	3	2	3

TASK CODE:	111.6.7	GOAL	Conduct	hazardous	chemical	liquid	bluk ca	rrgo t	ransfer	. Conduct hazardous chemical liquid bluk cargo transfer operations safely.	safely.	
OBJECTIVE:	Inspect ship and shore	p and shor	eside co	reside conditions prior to cargo transfer.	rior to c	argo tra	nsfer.					

Inspects visually vessel's operating boilers and galley, observes their location retlative to cargo vapors, according to check list, using own judgment and knowledge in order to determine whether boiler and galley fires can remain lighted with reasonable safety during loading of chemical liquid flammable cargoes.

Descriptive: Completes inspection in a thorough and accurate manner.	
	Functional:
	How to inspect vessel's bollers and galley equipment.
	How to detect unsafe conditions.
Numer i cal.	Specific:
• In all cases detects unsafe conditions when they exist.	Knowledge of specific vessel's boilers and galley facilities.
	Knowledge of specific vessel's cargo tanks, vent systems, cargo piping, and manifold systems.
THE TAX TO LET THE TAX TO THE TAX	Knowledge of chemical liquid flammable hazards.
The first of the second	Knowledge of check list.
SUBSTITUTE OF BENEFIT OF THE PARTY OF THE PA	
ANDREAS ASSESSED THAT AND COMPANY OF THE	

TASK CODE:	III.C.8	8							
	WORKER	NORKER FUNCTION LEVEL AND ORIENTAT	. AND ORIEN	TATION		BENEVA	GENERA	GENERAL EDUCATIONAL DEVELOPMEN	VELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	90	1A	2	1A	5	3	3	2	3

TASK CODE:	III.C.8	GOAL:	Conduct	hazardous	chemical	liquid	bulk c	argo	transfer	GOAL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.	safely.	
OBJECTIVE:	Inspect ship and	shores	ide condi	shoreside conditions prior to cargo transfer.	or to carg	trans	fer.					

TASK: Inspects visually cargo connections for loading of chemical liquid cargoes according to check list, rejects any defective segments, inspects emergency release devices, looks for improperly rigged hoses, using own judgment and knowledge in order to ensure cargo connection is safe and adequate.

	PERFORMANCE STANDARDS	TRAINING CONTENT	
Descriptive:		Functional:	
• Completes inspec	Completes inspection in a thorough and accurate	• How to inspect cargo connections aboard vessels.	board vessels.
manner.		• How to identify defective or improperly rigged hoses.	perly rigged hoses.
pipelines and no	busures chemical cargo is loaded through vessel s pipelines and not through open end hose in hatch.	Specific:	
Numerical:		• Knowledge of cargo connections, cargo hose, coupling flange, vessel pipelines, cargo tanks and cargo	irgo hose, coupling inks and cargo
• Cargo connection transfer.	Cargo connection is adequate in all cases of cargo transfer.	hatches. • Knowledge of chemical liquid's hazards.	ards.
All defective segments rigging corrected.	All defective segments are replaced and improper rigging corrected.	Knowledge of specific check list.	
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TASK CODE:	III.C.9								
	WORKER	FUNCTION LE	WORKER FUNCTION LEVEL AND ORIENT	ITATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	×	THINGS	×	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	06	1A	2	ΙΑ	5	3	3	2	3
TASK CODE:	111.C.9		GOAL: Con	luct hazardou	s chemica	60AL: Conduct hazardous chemical liquid bulk cargo	cargo transfer operations safely.	tions safely	
OBJECTIVE:	Inspect	ship and	shoreside	conditions pr	for to cal	Inspect ship and shoreside conditions prior to cargo transfer.	Section Streets		
TASK: Insp all open	pects visu	ually carg	SK: Inspects visually cargo tank openings, all openings in the top of tanks (required	nings, according to be	according to check list, to be closed) are tightly		using own judgment and knowledge in order to ensure closed when loading chemical liquid cargo.	nowledge in mical liquid	order to ensu
A STATE OF S		PERFORMA	PERFORMANCE STANDARDS	S		Contract of the contract of th	TRAINING CONTENT	NTENT	
Descriptive:	ive:					Functional:			
• Complet manner.	letes insper.	pection in	Completes inspection in a thorough manner.	h and accurate	ø	How to insper Specific:	How to inspect cargo tank openings.	penings.	
Numerical:	11:					• Knowledge of	Knowledge of vessel's cargo tank openings.	tank openin	88.
• In all closed liquid	ll cases, ed are tig id cargo.	all tank ghtly clos	cases, all tank top openings are tightly closed before lo cargo.	cases, all tank top openings required to be are tightly closed before loading chemical cargo.	to be	• Knowledge of	check list.	Tries delivers	
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	WORKER	ER FUNCTION LEVEL AND ORIENT	L AND ORIEN	TATION .		MODELE	GENERAL	GENERAL EDUCATIONAL DEVELOPMEN	VELOPMENT
DATA	×	PEOPLE	×	THINGS	×	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	06	1A	5	1.8	5	3	8	2	æ

TASK CODE: III	III.C.10	GOAL:	Conduct	hazardous	chemical	liquid	bulk c	argo	transfer	60AL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.	safely.	
												10000
DRIEFTIVE.												

Inspect ship and shoreside conditions prior to cargo transfer.

TASK: Inspects visually deck areas and spaces, facing, open and adjacent to cargo connections for open flames, and closes doors, ports, windows, vents, air conditioning intakes where appropriate, according to check list, using own judgment and knowledge in order to ensure that appropriate protection is taken against ignition of vapor emissions of chemical

4 (1980)	100	PERFORMAN	PERFORMANCE STANDARDS	6			TRAINING CONTENT	
Descriptive:	tve:					Functional:		
• Complet manner.	Completes inspection in a thorough manner.	ction in	a thorough	and accurate	e	How to detect	How to inspect deck areas and spaces aboard ship. How to detect unsafe conditions (e.g., fires and	e.g., fires and
Numerical:	ī	Marie Section 2	SECTION STORY			open flames).	235000100 00 00 00 00 00 00 00 00 00 00 00	
• Elimin of fla	Eliminates all sources of open flam of flammable chemical liquid cargo. Closes all appropriate doors, ports	sources o emical 11	f open fla quid cargo oors, port	Eliminates all sources of open flames prior to loading of flammable chemical liquid cargo. Closes all appropriate doors, ports, vents, air	loading	Specific: • Knowledge of specific very of fires or open flames.	<pre>.ific: Knowledge of specific vessel's spaces and sources of fires or open flames.</pre>	aces and sources
CONGI	conditioning intakes, etc.	rakes, et	ů			• Knowledge of hazard.	Knowledge of chemical liquid cargo's flammability hazard.	o's flammability
	Transport to					• Knowledge of check list.	check list.	
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SK CODE:	TASK CODE: III.C.11								
	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	AND ORIEN	TATION		WARKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	*	SONIHL	*	INSTRUCTIONS	REASONING	МАТН	LANGUAGE
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Conduct hazardous chemical liquid bulk cargo transfer operations safely.	
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k cargo	
quid bul	de conditions prior to cargo transfer.
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t hazard	itions p
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GOAL	shorest
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III.C.1	Inspect ship and shoreside
TASK CODE: III.C.11	OBJECTIVE:

TASK: Inspects visually the location of spaces and areas relative to cargo tanks, wents, manifold area, according to check list and using own judgment and knowledge in order to determine whether smoking may be permitted with reasonable safety in those areas during loading of chemical liquid flammable cargo.

Descriptive: Completes inspection in a thorough and accurate manner. 	Functional: How to inspect deck areas.	tional: How to inspect shipboard spaces, and cargo handling deck areas.
Numerical:	How to detect u	How to detect unsafe conditions.
In all cases, detects unsafe conditions when they exist.	Specific: • Knowledge of sp manifold area.	Knowledge of specific vessel's cargo tanks, vents, manifold area.
	Knowledge of ch	Knowledge of chemical liquid's flammable hazard.
	Knowledge of check list.	eck list.
	h.	
	Charles Control Agent	

TASK CODE:	TASK CODE: 111.C.12								
	WORKER	JORKER FUNCTION LEVEL AND ORIEN	AND ORIEN	TATION		MODIKED	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	SONIHL	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
1	20	2	40	¥τ	10	2	3	1	3

TASK CODE:	ASK CODE: III.C.12	GOAL:	Conduct	hazardous	chemical	11quid	bulk can	go transfe	50Al: Conduct hazardous chemical liquid bulk cargo transfer operations safely.	safely.	
OBJECTIVE:	Inspect ship and shoreside conditions prior to cargo transfer.	shores	ide condi	tions pric	or to carg	to trans	fer.		- 建基		

TASK: Inspects visually the closing of cargo valve when emergency controls (control panel push button switch or manual level in pipeline) are tested, according to check list; converses with terminal representative to coordinate test, in order to ensure emergency shut down operation works properly prior to transfer of cargo.

Descriptive: Complete test accurately and thoroughly. Numerical: In all cases, emergency shut down test is conducted prior to hazardous chemical transfer operations. Pronctional: Bow to determine equipment is functioning properly from visual operation of valves. Bow to communicate with terminal personnel about test procedures. Specific: Knowledge of specific emergency shut down controls and valves. Knowledge of hazards associated with chemical liquid bulk cargo and additional specific hazards (e.g., flammability, reactivity, health, etc.). Knowledge of check list.	e test accurately and thoroughly. cases, emergency shut down test is conducted o hazardous chemical transfer operations. Speci	PERFORMANCE STANDARDS	TRAINING CONTENT
cases, emergency shut down test is conducted to hazardous chemical transfer operations. Speci	cases, emergency shut down test is conducted to hazardous chemical transfer operations. Speci	Descriptive:	Functional:
Lo hazardous chemical transfer operations.	cases, emergency shut down test is conducted to hazardous chemical transfer operations.	 Complete test accurately and thoroughly. Numerical:	 How to determine equipment is functioning properly from visual operation of valves.
		 In all cases, emergency shut down test is conducted prior to hazardous chemical transfer operations. 	How to communicate with terminal personnel about test procedures. Specific:
			• Knowledge of specific emergency shut down controls and valves.
		The second of th	• Knowledge of appropriate terminal personnel.
			Knowledge of hazards associated with chemical liquid bulk cargo and additional specific
			hazards (e.g., flammability, reactivity, health, etc.).
了是是不是一个人,他们也是一个人,也是是一个人,也是一个人,他们也是一个人,也是一个人,也是一个人,也是一个人,也是一个人,也是一个人,也是一个人,也是一个人, 一个人,也是一个人,也是一个人,也是一个人,也是一个人,也是一个人,也是一个人,也是一个人,也是一个人,也是一个人,也是一个人,也是一个人,也是一个人,也是一个人			• Knowledge of check list.
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TASK CODE:	III.C.13	13							
	WORKER	WORKER FUNCTION LEVEL AND ORIENT	AND ORIEN	TATION		02.00	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	374034	*	SONIHL	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
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	III.C.13	
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	AL: C	
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	UAL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.	
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ONJECTIVE: Inspect ship and shoreside conditions prior to cargo transfer.

TASK: Examines and evaluates data concerning content of inert gas, carries and uses portable gas analysis equipment and reads gagds, manipulates switches provided with equipment, following manufacturer's instructions and standard operating procedure, prior to loading a specific chemical cargo, in order to test a sample of inerting gas and ensure it meets prescribed standards.

PERFORMANCE STANDANCS	TRAINING CONTENT
Descriptive:	Functional:
· Examines and evaluates data thoroughly and accurately.	. How to evaluate data relating to inert gas control.
. Good judgment is used in discretionary areas.	. How to manipulate analytic equipment.
Manipulates equipment correctly.	. How to read dials (with decimal scales).
· Completes tests accurately and thoroughly.	. How to read manufacturer's instructions.
• Completes tests when required.	Specific:
Numerical:	Knowledge of standard operating procedures and manufacturer's instructions.
X number of complaints on accuracy of tests.	Knowledge of standards for inert gas padding of specific chemical cargo.
	• Knowledge of specific chemical cargo's hazards (e.g., flammability, reactivity, toxicity, etc.).

I ASA COUE:	WARKER	WORKER FINCTION I EVEL AND DRIEN		TATION			T G D T D T	CONCATIONAL DEV	EI OBSERV
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2	, 09	2	30 %	1A	10	3	REASONING 3	2	LANGUAGE 3
TASK CODE:	111.6.14		GOAL: Cond	uct hazardous chemical	us chemica	il liquid bulk cargo	transfer operations	ations safely.	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)
OBJECTIVE: TASK: Che operating	Inspeccks visua	DELECTIVE: Inspect ship and shoreside ASK: Checks visually craft alongside to operating procedure, in order to ensure	shoreside longside t to ensure	conditions ankship and that no un	prior to c communica	conditions prior to cargo transfer. Lankship and communicates with terminal personnel via radio following that no unauthorized craft is alongside, and that authorized craft	personnel via radio following	adio following thorized craft	standard has been
advised o	r cargo	advised of cargo operations.	PERFORMANCE STANDARDS	A Million			TRAINING CONTENT	NTENT	
Descriptive:	ve: etes chec nicates c	riptive: Completes check in a thorough and accurate manner. Communicates clearly with terminal personnel.	ough and a	ccurate man	ner.	Functional: • How to check • How to operate	tional: How to check for and identify unauthorized craft. How to operate ship's radio.	fy unauthorize	ed craft.
Numerical: • Ensures and all tions.	: es unauthorize 11 authorized	Ensures unauthorized craft and all authorized craft tions.	is not are awa		side vessel cargo opera-	Specific: • Knowledge of • Knowledge of	ship's radio. craft alongside.	<u>a</u>	
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TASK CODE:	111.0.15	15							
	WORKER	WORKER FUNCTION LEVEL AND ORIENT	AND ORIEN	FATION		WARKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	×	THINGS	*	INSTRUCTIONS	REASONING	MATH	TANGUAGE
38	06	1	5	1	5	3	ε	7	8

TASK CODE:	III.C.15		GOAL:	Conduct	hazardous	chemical	liquid	bulk c	argo	ransfer	It: Conduct hazardous chemical liquid bulk cargo transfer operations safely.	safely.	
OBJECTIVE:	Inspect	thip and	shore	side co	ship and shoreside conditions prior to cargo transfer.	rior to c	argo tra	nsfer.	PA Con-				

TASK: Inspects permanent and portable spark generating equipment onboard ship according to check list, such as radio and telephone systems, searchlights, loud hallers, electrical controls for ship's whistles, and other equipment capable of producing sparks in order to ensure disconnection or switching of transmissions from transmitters to earth.

	PERFORMANCE STANDARDS	TRAINING CONTENT
Descr.	Descriptive: Completes inspection in a thorough and accurate manner.	Functional: • How to inspect shipboard electric transmission equipment for safety certification.
Numerical:	:Ical:	Specific:
• 6024	Disconnects all electric transmission hazardous to cargo transfer operations unless equipment is certified intrinsically safe and power output is adjusted in accordance with safety requirements.	 Knowledge of type and location of equipment onboard ship capable of producing sparks. Knowledge of check list.
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I ASK CODE:	111.0.16	10							
	WORKER	WORKER FUNCTION LEVEL AND ORIENTAT	AND ORIEN	TATION		a 3 x a UM	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
2	65	2	25	14	10	3		2	3

TASK CODE:	111.C.16	GOAL:	Conduct	: Conduct hazardous chemical liquid bulk cargo transfer operations safely.	chemical	liquid	bulk ca	rgo tr	ansfer	operations	safely.	
	A CONTRACTOR OF THE PARTY OF TH			The state of the s			The real Party and Publishers and Pu					

OBJECTIVE:

Inspects ship and shoreside conditions prior to cargo transfer.

TASK: Inspects positioning of emergency towing wires according to checklist and obtains information from appropriate personnel of the condition of ship's boiler, main engines, steering machinery, and other equipment essential for maneuvering, in order to ensure that the ship can move away from berth quickly in the event of an emergency.

		PERFORMANCE STANDARDS	TRAINING CONTENT
J-76	De	Descriptive:	Functional:
	•	Completes inspection and obtains information in a thorough, accurate manner.	How to inspect emergency towing wires. Knowledge of departmental personnel responsibilities
	•	Communicates with appropriate, knowledgeable personnel.	and assignments and lines of communication among personnel onboard ship.
	N.	Numerical:	South fit.
	•	Inspects all emergency towing wires for correct po- sitioning.	Knowledge of type and location of emergency towing
_		Obtains all pertinent information recarding ship's	wires on particular ship.
			 Knowledge of personnel to contact for ship equipment capability information.
			• Knowledge of check list.

TASK CODE: III. C. 17	III.C.1	,							
	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	AND ORIENT	ATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	×	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
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Inspect ship and shoreside conditions prior to cargo transfer. OBJECTIVE:

TASK: Inspects and evaluates location of shoreside facilities, maintenance of vessel mobility, provisions for fire protection, state or change of winds, tides, seas, weather conditions, forces of nature and other circumstances generally beyond human control, according to check list, using own judgment, experience and knowledge, in order to ensure safe conditions prior to transfer of cargo between vessel and shore.

TRAINING CONTENT	tional: General knowledge of tanker safety practices (e.g., International Oil Tanker and Safety Guide).	How to evaluate unsafe conditions having an effect on cargo transfer operations.	General knowledge of shoreside facilities, vessel mobility at dockside, fire protection equipment,	the effect of atmospheric and sea conditions on vessel.	Minwledge of check list.			CONTRACTOR OF THE PROPERTY OF	
	Functional: General Interna	•	• •		Specific: • Knowl				
PERFORMANCE STANDARDS	Descriptive: Completes inspection in a thorough and accurate manner.	Considers both safety and environmental conditions having an effect on cargo transfer operations.	<u>ical:</u>	Judgment is good in X% of the cases.				State of the state	
	Descri	•	Numerical:	•	A SHIPTER LINE	No.			

TASK CODE:	III.C.18	8:							
	WORKER	WORKER FUNCTION LEVEL AND	AND ORIENT	ORIENTATION		asiaum	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
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DATA	×	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUA
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ACK CODE.	er rone. III.C.1		GOAL Con	duct hezerdon	e chamics	II. Conduct hererdone chemical Itania built careo transfer operations esfely	tranefer oner	ations safely	

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d shore	udgment	
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vesse	and or	ration
TASK: Examines and evaluates data concerning vessel and shoreside inspections prior to cargo transfer operations using	knowledge of standard operating procedure and own judgment in order to determine if conditions are appropriate and	safe for commencement of cargo transfer operations
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TASK:	know.	safe

Inspect ship and shoreside conditions prior to cargo transfer.

OBJECTIVE:

TRAINING CONTENT	Functional: General knowledge of the preparations/inspections necessary for safe, efficient cargo transfer operations. How to identify and evaluate factors leading to unsafe conditions for cargo transfer operations. General knowledge of variations in preparations and inspections as a function of cargo type.	 Specific: Knowledge of chemical characteristics and hazardous properties of the various cargoes being transferred. Knowledge of unique or unusual vessel, shoreside or environmental characteristics or conditions having an effect on the commencement of cargo transfer operations. Knowledge of specific standard operating procedure.
PERFORMANCE STANDARDS	• Good judgment is used in discretionary areas. • Evaluates and examines information thoroughly and accurately. • Shows awareness of potential hazards associated with improper, inadequate inspection. Numerical:	

TASK CODE: III.D.1 GENERAL EDUCATIONAL DEVELOPMENT WORKER GENERAL EDUCATIONAL DEVELOPMENT DATA % THINGS % THINGS % THINGS % TANGUAGE 4 50 5 40 1 10 4 4 4 3 4										
WORKER FUNCTION LEVEL AND ORIENTATIONWORKERGENERAL EDUCATIONAL DEVELO%PEOPLE%INSTRUCTIONSREASONINGMATH50540110443	TASK CODE:	III.D.1								
% PEOPLE % THINGS % INSTRUCTIONS REASONING MATH 50 5 40 1 10 4 4 3		WORKER	I FUNCTION LEVEL	AND ORIEN	TATION		WODVED	GENERA	L EDUCATIONAL DE	VELOPMENT
2	DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
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TASK CODE:	III.D.1	GOAL:	Conduct	hazardous	chemical	liquid	bulk ca	argo t	ransfer	Conduct hazardous chemical liquid bulk cargo transfer operations safely.	safely.	Section Contract
- Contraction												

Start and conduct cargo transfer operations.

TASK: Directs personnel in the initiation and conduct of cargo transfer operations, following standard operating procedure, using designated onboard communications equipment or face-to-face contact when necessary, and using own knowledge of transfer operations and personal judgment in order to transfer cargo safely.

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
• Transfer operations are conducted efficiently, safely and according to standard operating procedure.	 How to understand, interpret standard operating procedures, manuals, relevant to cargo transfer operations.
 Uses good judgment in discretionary areas. Maintains effective communication with personnel. 	 General knowledge of the hazards and problems commonly associated with liquid chemical cargo transfer operations.
<pre>Numerical: Fewer than X complaints that communication is ineffective.</pre>	How to supervise and communicate with shipboard personnel.
· Cargo tanks are not overloaded.	Specific:
 A significant amount of liquid is not released to to the environment in all cases of transfer. 	 Knowledge of specific standard operating procedures relevant to operations.
TOTAL CONTRACTOR OF THE PROPERTY OF THE PROPER	 Knowledge of properties and hazards of particular cargo being transferred.
	 Knowledge of cargo transfer equipment and procedures specific to ship or terminal.
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Start and conduct cargo transfer operations.

for operations after completing inspections required prior to cargo transfer, in order to outline general procedures and municates via walkie-talkie or in person with terminal authorities concerning his readiness to commence trans-

Communicates clearly and concisely and fully under-

How to use and understand terminology related to

the transfer of chemical bulk cargo.

How to use portable communications equipment,

How to judge the readiness of ship equipment and

crew for the commencement of cargo operations.

• Understands all data received from terminal authorities.

operations.

• Knowledge of type and location of communications equipment onboard ship.

Specific:

Knowledge of intended cargo transfer operations.

Knowledge of required inspection and preparations prior to transfer of cargo.

	TASK CODE: III.D.3							•
EA	NORKER FUNCTION LEVEL AND ORIENTATION	. AND ORIENT	TATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	/ELOPMENT
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OBJECTIVE: Start and conduct cargo transfer operations.

TASK: Writes/fills out standard form in duplicate, entitled "Declaration of Inspection prior to Bulk Cargo Transfer," following standard operating procedure; delivers copy to terminal superintendent in order to inform terminal representative of the vessel's condition before transfer of flammable and combustible chemical liquid cargo.

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive: • Form is complete and accurate.	Functional: • How to fill out standard form.
 Duplicate copy of form is delivered to terminal representative. 	Specific:
Numerical:	 Knowledge of specific Declaration of Inspection form and standard operating procedure for requiring
• Fewer than XX complaints that form is incomplete, inaccurate or not delivered to appropriate terminal representative.	completion.

TASK CODE: III.D.4	III.D.4								
	WORKER	VORKER FUNCTION LEVEL AND ORIEN	. AND ORIEN	NTATION		asalom	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	/ELOPMENT
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	ASK CODE: III.D.4 60AL: Conduct hazardous chem.	

OBJECTIVE:

Start and conduct cargo transfer operations.

noted on vessel's certificate of inspection, and following standard operating procedure, using own judgment and knowl-MASK: Operates and controls cargo valves manually or using control panel pushbuttons, observes cargo connections and hose for leakage, and operating pressure gage on cargo system, complying with specific cargo loading limitations edge, in order to transfer cargo without leakage to environment.

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:

Descriptive: Starts transfer slowly.

General knowledge of operating principles of cargo

pump, cargo valves, pressure indicators, ullage

indicators, etc.

How to operate controls on a control panel. How to read gages (decimal indications).

Controls chemical liquid cargo transfer carefully and correctly.

No significant amount of chemical liquid is released to the environment in all cases of transfer. No overload of individual tanks occurs.

Numerical:

• Knowledge of standard operating procedures and loading limitation on vessel's certificate of inspection.

Specific:

How to read and follow standard operating procedures.

Knowledge of specific liquid chemical cargo pumping characteristics and hazards.

Knowledge of specific cargo pump operation, cargo valves, cargo pipe connections, pressure indicators, ullage indicators, etc.

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	WORKER	WORKER FUNCTION LEVEL AND ORIEN	AND ORIEN	TATION			GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT	
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Conduct hazardous chemical liquid bulk cargo transfer operations safely.		TASK: Inspects visually cargo pumps and pump rooms during cargo transfer operation, according to check list, checks pump's operating temperature and pressure, checks valves and pump glands using own knowledge and judgment, in order to guard against excessive bilge accumulation of cargo which may leak from valves and pump glands.
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nazardous	r operatio	mps and pump rooms during cargo transfer operation, according to c pressure, checks valves and pump glands using own knowledge and j accumulation of cargo which may leak from valves and pump glands.
Conduct 1	transfe	and pumplessure, cumulation
GOAL:	t cargo	o pumps and pr
III.D.5	Start and conduct cargo transfer operations	FASK: Inspects visually cargo pumpump's operating temperature and to guard against excessive bilge
TASK CODE: III.D.5	OBJECTIVE:	FASK: Instruction pump's option

Functional:	TENTONMANCE STANDANDS		TRAINING CONTENT
ecified items are inspected.	Descriptive: Completes inspection in a thorough manner	Functional: • How to inspect	operating machinery and room vent
Spec	Numerical:	How to detect	unsafe conditions.
Specific: • Knowledge of pump machinery • Knowledge of pump room.	All specified items are inspected.	How to read ter	mperature and pressure gages.
		Specific: • Knowledge of p	ump machinery.
		Knowledge of p	ump room.
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	III.D.6 GOAL: Conduct hazardous chem
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	111.D.6
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ORIECTIVE: Start and conduct cargo transfer operations.

TASK: Examines and evaluates data concerning toxic vapor content of air in pump room, carries and uses portable gas indicator and reads gages, manipulates switches and controls provided with equipment, following standard operating procedure and manufacturer's instructions in order to test toxicity of air prior to personnel entry and inspection of the pump room during the transfer of a specific chemical cargo (e.g., chemical cargo that is a health hazard).

	10-11-11-06	FERFURMA	PERFORMANCE STANDANDS	601			THE CONTENT	CONICHI	
Descriptive:	tive:					Functional:			
• Exa	mines an	Examines and evaluates data thoroughly and accurately.	data thor	oughly and	accurately.	How to eva	How to evaluate data relating to toxicity.	ting to toxic	ity.
• 600	d judgme	Good judgment is used in discretionary areas.	in discret	ionary area	·	How to ope	How to operate gas indicator equipment.	tor equipment	•
Man	ipulates	Manipulates equipment correctly.	correctly.			How to rea	How to read dials and gages (decimal readings).	es (decimal r	eadings).
• Com	pletes t	Completes tests accurately and thoroughly.	ely and t	horoughly.		How to rea	How to read and follow manufacturer's instructions.	nufacturer's	instruction
• Con	pletes t	Completes tests when required.	equired.			Specific:			
Numerical: • In all	al: all case	rical: In all cases, no personnel are exposed to toxic	mel are e	xposed to t	oxic	Knowledge manufactur	Knowledge of standard operating procedures and manufacturer's instructions.	rating procedns.	ures and
vap	vapors.					• Knowledge	Knowledge of toxic vapor threshold limit values. Knowledge of hazardous properties of specific	threshold lim operties of s	it values. pecific
						chemical c	chemical cargo (i.e., health hazards).	Ith hazards).	
						AND ALCOHOL	THE STATE OF THE S		

	Control of the Contro								
TASK CODE: III.D.7	III.D.7								
	WORKER	WORKER FUNCTION LEVEL AND ORIENTAT	AND ORIEN	TATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	40	1.8	10	28	90	3	3	8	7

TASK CODE:	III.D.7	GOAL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.	t hazardous	chemical	liquid bul	k cargo	transfer	operations	safely.	
OBJECTIVE:	Start and conduct	ct cargo transfer operations.	sfer operati	lons.						

TASK: Operates controls to cargo transfer subsystem (push buttons, switches on cargo control panel), discontinuing	cargo transfer during severe electrical storms or fire on wharf, tanker, or vicinity, following emergency operating	rocedure, using own judgment and knowledge in order to stop chemical liquid cargo transfer during unsafe conditions.
nel), dis	g emergen	ring unsa
ontrol pa	followin	ansfer du
cargo co	dcinity,	cargo tra
dtches or	ker, or v	1 11quid
ttons, sw	harf, tan	p chemica
nq ysnd)	fire on w	er to sto
ubsystem	corms or	e in ord
ransfer s	trical st	knowledg
o cargo t	vere elec	gment and
ontrols t	during se	g own jud
perates c	transfer	ure, usin
TASK: O	cargo	proced

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
 Controls liquid cargo transfer in an alert manner. Responds immediately and positively in emergency 	How to operate cargo transfer controls on cargo control panel.
situations.	How to positively respond in emergency situations.
Numerical:	• General knowledge of operating principles of cargo transfer subsystem.
• Takes instantaneous action to stop cargo transfer in all situations involving severe electrical storms	Specific:
and lire on whari, tanker, or vicinity.	• Knowledge of emergency operating procedures that require discontinuance of transfer operations under unsafe conditions (electrical storms or fire on wharf, tanker, or vicinity).
	• Knowledge of specific cargo transfer subsystem (cargo tanks, cargo vents, cargo hose, cargo pumps,
	etc.).
AND THE RESERVE THE PROPERTY OF THE PROPERTY O	TO AND THE WAS ASSESSED. THE STATE OF THE ST

	EVELOPMENT	LANGUAGE	4	a track a second as	10 A	conformity to norms of data, to record accurate cargo		sources. log book r data. perties of tures. times of times of times of	
	GENERAL EDUCATIONAL DEVELOPMENT	MATH	3	itions safel		cecord accur	NTENT	from several and data in argo transfe themical pro- thing proced data entri nd after los termination srature, dre	
	GENERAL	REASONING	4	o transfer opera		checks accuracy in conformity to norms of d knowledge in order to record accurate cargo	TRAINING CONTENT	How to gather information from several sources. How to record information and data in log book (some data in decimals). How to check accuracy of cargo transfer data. Ific: Knowledge of physical and chemical properties of specific chemical cargo. Knowledge of standard operating procedures. Knowledge of standard operating procedures. Knowledge of standard and data entries such as: cargo tank gaging before and after loading and discharging, starting and termination times of cargo transfer, cargo temperature, draft and load line marks.	
	MODKED	INSTRUCTIONS	4	1 liquid bulk cargo transfer operations safely.		in vessel's logs, checks; own judgment and knowled		Functional: How to gath How to reco (some data How to chec Specific: Knowledge o Specific ch Knowledge o Cargo tank discharging cargo trans line marks.	
		*	10	s chemica	tions.	a in vess		ugh.	
	ATION	THINGS	1A	Conduct hazardous chemical	Start and conduct cargo transfer operations.	Collects data about cargo transfer, enters data in vessel's logs, following standard operating procedure and using own judgment and data.		Log book entries are brief, complete and accurate. Records entries with reasonable speed. Evaluations are perceptive, accurate and thorough. Infermation in all entries.	200
	AND ORIENT	*	5	GOAL: Cond	cargo tr	transfer ing proce	STANDARDS	lef, comple spive, accura	C3.
	WORKER FUNCTION LEVEL AND ORIENTATION	PEOPLE	1A	0	and conduct	Collects data about cargo transfer, following standard operating proceddata.	PERFORMANCE STANDARDS	Log book entries are brief, complete a Records entries with reasonable speed. Evaluations are perceptive, accurate a rical: No more than X errors or omissions of information in all entries.	
111.D.8	WORKER	×	85	111.0.8	Start	cts data Wing stan		ook entries are ds entries with ations are per if re than X error mation in all	
TASK CODE:		DATA	38	TASK CODE:	OBJECTIVE:	TASK: Colleging follow data.		Descriptive: Log book Records Evaluati Numerical: No more informat	

	WORKER	IORKER FUNCTION LEVEL AND ORIENT	AND ORIEN	TATION		GENGUM	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	×	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE

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	ASK CODE: III.E.1 GOAL: Conduct hazardou

OBJECTIVE:

Ballast the tankship.

ASK: Directs personnel in the performance of ballasting operations, following standard operating procedure, using own judgment and knowledge of ballasting operations and equipment, and using onboard communications equipment when necessary, in order to ensure ballasting operations are conducted safely. TASK:

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
• Directs personnel effectively, correctly, and safely.	• Understanding of the procedures involved in ballasting operations.
Ballasting operations are completed safely and correctly.	How to interpret standard operating procedures relevant to ballasting operations.
Uses good judgment in discretionary areas. Maintains effective communication with personnel.	General knowledge of the hazards and problems commonly associated with ballasting operations.
Numerical:	How to supervise and communicate with shipboard personnel.
Fewer than XX complaints that communication is ineffective.	Specific:
· 是一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个	Knowledge of specific standard operating procedures relevant to ballasting operations.
	• Knowledge of ballast procedures and equipment specific to vessel.

TASK CODE:	III.E.2	le la							
	WORKER	VORKER FUNCTION LEVEL AND ORIE!	AND ORIENT	ITATION		WARKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
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OBJECTIVE:

Ballast the tankship.

duration of ballasting operations, to obtain permission to commence operations, and to receive information on terminal procedures relevant to ballasting vessel. Communicates with terminal authorities via walkie-talkie or in person in order to advise authorities of scope and

 Descriptive: Communicates clearly and concisely, and fully under-stands received information. Communicates clearly and concisely, and fully under-stands received information. How to use portable communications equipment. How to use and understand terminology related to ballasting to a vessel. Tunctional: How to use and understand terminology related to ballasting to ballasting a vessel. 	TRAINING CONTENT Le communications equipment. derstand terminology related to fons. rocedures involved in ballasting
procedures.	

Knowledge of type and location of communications

equipment on vessel.

Knowledge of ballasting sequence and procedures

for a particular ship.

Understands all data received from terminal

authorities.

TASK CODE:	III.E.3								
	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	L AND ORIENT	ATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	FLOPMENT
DATA	*	PEOPLE	*	THINGS	×	INSTRUCTIONS	REASONING	MATH	LANGUAGE
3.8	85	1.8	5	14	10	4	4	4	4
TASK CODE:	III.E.3		60AL: Conduct	act hazardous	s chemical	liquid bulk	cargo transfer opera	operations safely.	
OBJECTIVE:	Ballas	Ballast the tankship.	htp.						
TASK: Cal Stability	lculates Booklet	NSK: Calculates the ballasting sequen Stability Booklet in order to maintain	ing sequen	nce according to s a constant draft.	g to specdraft.	Calculates the ballasting sequence according to specified procedures in the vessel's Loading Manual and Trim ty Booklet in order to maintain a constant draft.	n the vessel's L	oading Manual	and Trim
		PERFORMANCE STANDARDS	ESTANDARDS				TRAINING CONTENT	NTENT	
Descriptive:	. j.					Functional:	tional:		3 0
consta	nt draft	rioperly plans ballasting sequence constant draft is maintained.	sequence ned.	Such that a		ballast operation.	ration.	200	
• Safel hull proper	Safely sequences hull stress by s proper sequence.	ces ballasti y specifying	ng operat: ; proper f:	Safely sequences ballasting operations to minimize hull stress by specifying proper filling rate and proper sequence.	mize	How to calcra algebraic or Specific:	How to calcuate vessel's stresses (may require algebraic or geometric procedures).	resses (may :	require
Numerical:						• Knowledge o	Knowledge of vessel's ballast system.	st system.	
• In all c ballasti numeral.	cases, sting wil	a constant thout exceed	draft is a	In all cases, a constant draft is maintained during ballasting without exceeding the vessel's stress numeral.	luring	• Knowledge of ve Loading Manual.	vessel's il.	Trim and Stability Book and	7 Book and
						State of the States			
						THE RESERVE OF THE PERSON OF T			

TASK CODE:	III.E.4								
	WORKER	JORKER FUNCTION LEVEL AND ORIENT	. AND ORIEN	ITATION		WORKE	GENERAL	SENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
2	25	14	5	28	0,2	2	2	2	3

TASK CODE: III.E.4	III.E.4	GOAL:	Conduct	hazardous	chemical	liquid	bulk c	argo t	ransfer	Conduct hazardous chemical liquid bulk cargo transfer operations safely.	safely.	
OBJECTIVE:	Ballast the tankship.	nkship.										
									No.	TOTAL TIME SE		8

) and start pump to provide pressure to ballast system following standard operating	
stem following st	
e to ballast sy	ed sednence.
provide pressur	ballast water following a predetermined sequence
start pump to	water followin
valves	7
up (open and close	in order to take on bu
TASK: Line-up	procedure,

TRAINING CONTENT	How to operate components of ballast system. How to start pumps. How to ascertain ballast pump pressure.	Knowledge of vessel's ballast system. Knowledge of vessel's procedure for operating the ballast system.		
	Functional: How to operate comp How to start pumps.	Specific: • Knowledge of verthe the Knowledge of verthe ballast system.		AND COLORS OF STREET
PERFORMANCE STANDARDS	Completely and correctly opens and closes necessary valves between ballast tanks and the sea chest. Properly operates the salt water ballast pump.	All valves within the ballast system are opened and closed in the correct sequence. In all cases, ballast tanks are not overfilled.		
	Descriptive: Completely are valves betwee Properly open	Numerical: All valves wire closed in the line all cases.		

	WORKER	WORKER FUNCTION LEVEL AND ORIENTAT	AND ORIENT	FATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	/ELOPMENT
DATA	*	PEOPLE	%	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	06	1A	5	1	5	4	7	3	7

TASK: Inspects visually pumps and pump rooms during ballasting operations, using own knowledge of equipment (e.g., pumps, valves, lines, venting system), or equipment manuals when necessary, in order to ensure that ballasting operations are proceeding safely and efficiently.

Descriptive:	PERFORMANCE STANDARDS	TRAINING CONTENT
ts <u>all</u> major equipment used in ballasting Speci	s inspection in a thorough	Functional: • How to inspect pumps and pump room equipment, including lines, venting system.
• • • • • • • • • • • • • • • • • • •	Numerical: Inspects all major equipment used in ballasting operations.	How to detect malfunctioning pump room equipment or unsafe conditions. Understanding of ballasting operations.
		Specific: • Knowledge of pumps, pump room equipment on tankship.
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TASK CODE: III.F.1	III.F.1								
	WORKER	WORKER FUNCTION LEVEL AND	AND ORIENTATION	TATION		WORKER	GENERA	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	%	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAG
7	50	\$	40	14	10	7	7	3	7

I: Conduct hazardous chemical liquid bulk cargo transfer operations safely.	
transfer	
id bulk cargo	
chemical liqu	
t hazardous	rations.
L: Conduc	sfer ope
GOAL	erminate cargo transfer operations.
III.F.1	Terminat
TASK CODE: III.F.1	OBJECTIVE:

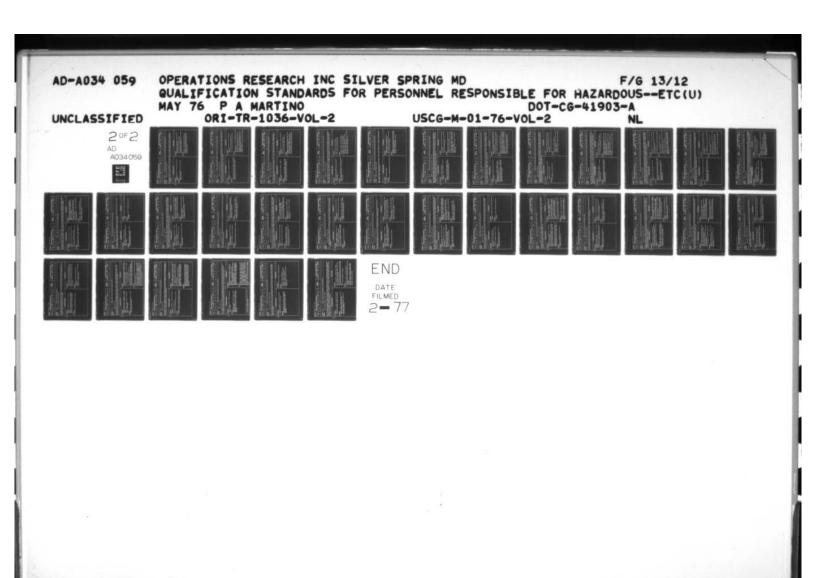
IASK: Directs personnel in the termination of cargo transfer operations, following standard operating procedure, using only communications equipment or face-to-face contact when necessary, and using own knowledge of cargo transfer	
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ASK: Directs personnel in the termination of cargo transfer operations, following standard operating procedure, usionhoard communications equipment or face-to-face contact when necessary, and using own knowledge of cargo transfer	operations and personal judgment when directing operations such as "topping off" cargo and in order to ensure that termination of cargo transfer is performed correctly and safely.
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Punctional: Transfer operations are terminated safely, and according to standard operating procedures. Uses good judgment in discretionary areas. Maintains effective communication with personnel. Where than XX complaints that communication is ineffective. Rowledge of specific standard operations and problems communication is ineffective. Rowledge of specific standard operations and personnel. Specific: Knowledge of the hazards and problems communication with personnel. How to supervise and communicate with shipboard personnel. Rowledge of specific standard operations are specific to ship or terminal. Knowledge of cargo transfer operations and problems communication and problem	PERFORMANCE STANDARDS	TRAINING CONTENT
The personnel effectively, correctly and safely. The operations are terminated safely, and fing to standard operating procedures. Sood judgment in discretionary areas. The standard communication with personnel. The standard communication is specified that XX complaints that communication is sective.	Descriptive:	Functional:
ing to standard operating procedures. good judgment in discretionary areas. ins effective communication with personnel. than XX complaints that communication is spective.	•	 General knowledge of cargo transfer operations and subsystems used in termination procedures.
tins effective communication with personnel. than XX complaints that communication is specifive.	according to standard operating procedures. • Uses good judgment in discretionary areas.	• General knowledge of the hazards and problems commonly associated with chemical liquid cargo transfer
than X% complaints that communication is spective.	-	How to supervise and communicate with shipboard
Sheet and the sh	Numerical:	personnel.
	• Fewer than X% complaints that communication is	Specific:
 Knowledge of properties and hazards of particular chemical cargo being transferred. Knowledge of cargo transfer equipment and procedures specific to ship or terminal. 	ineffective.	 Knowledge of specific standard operating procedures relevant to operations.
• Knowledge of cargo transfer equipment and procedures specific to ship or terminal.		 Knowledge of properties and hazards of particular chemical cargo being transferred.
		 Knowledge of cargo transfer equipment and procedures specific to ship or terminal.

					a contraction of the	and the second		
	VELOPMENT	LANGUAGE	7		tiza esta	ing a during following		es of cargo
	GENERAL EDUCATIONAL DEVELOPMENT	3 ations safely	ng rate, leav ture increase to shut down, low.	NTENT	ting principlifer controls.			
	GENERAL	REASONING	3	transfer oper		irgo tank loadi ssible tempera ig to stand by so liquid overf	TRAINING CONTENT	<pre>ctional: General knowledge of operating principles of cargo pump, valves, etc. How to operate cargo transfer controls.</pre>
	WODVED	INSTRUCTIONS	3	Conduct hazardous chemical liquid bulk cargo transfer operations safely.		np using control panel push buttons, controls cargo tank loading rate, leaving a in tank for expansion of liquid cargo (due to possible temperature increase during tank, gives terminal personnel adequate warning to stand by to shut down, following and using own judgment in order to prevent cargo liquid overflow.		Functional: General knowledge pump, valves, etc. How to operate car
		%	35	s chemica	ou oarong	nel push bi n of liquial al personi		l off.
	TATION	THINGS	28	uct hazardou	operations.	control pan for expansio gives termin ng own judgm		being topped off. so tank.
		%	25	GOAL: Cond		ump using in tank ist tank, and usi	STANDARDS	
	WORKER FUNCTION LEVEL AND ORIENT	PEOPLE	2	9	Terminate cargo transfer	TASK: Operates cargo transfer pump using specified percentage of space in tank f voyage) before topping off last tank, g standard operating procedure, and usin	PERFORMANCE STANDARDS	riptive: Slows rate of transfer as tank is being t Carefully controls filling of cargo tank.
III.F.2	WORKER	%	07	III.F.2	Termi	ates carg d percent before to operatin		ive: s rate of fully con
TASK CODE:		DATA	38	TASK CODE:	OBJECTIVE:	TASK: Opera specified voyage) l standard		Descriptive: Slows ra Carefull

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TRAINING CONTENT	Functional: General knowledge of operating principles of cargo pump, valves, etc. How to operate cargo transfer controls. How to read dials, recording equipment.	Specific: How to regulate liquid cargo loading rate using specific controls.	 Knowledge of specific cargo pump operation, specific cargo tank capacity. Knowledge of specific cargo properties and characteristics (1 e.g. volumetric coefficient of expansion). 	• Knowledge of specific standard operating procedures.	
PERFORMANCE STANDARDS	Descriptive: Slows rate of transfer as tank is being topped off. Carefully controls filling of cargo tank. Numerical:	• Cargo liquid overflow does not occur in <u>all</u> cases of cargo transfer.	The second second second is the second secon		





	II.F.3	TASK CODE: III.F.3		
_	II.F.3		10 - 10 miles	
	II.F.			

WORKER	WORKER	WORKER FUNCTION LEVEL AND ORIENT	AND ORIEN	TATION			GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	20	18	S	28	45	3	3	3	4

	ISK CODE:
	III.F.3
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	L: Conduct
	30AL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.
	chemical
4	liquid bu
	ulk cargo
	transfer
	operation
	s safely.

OBJECTIVE: Terminate cargo transfer operation.

scribed shutting down procedures in order to stop transfer operations carefully without rupturing cargo hose due to TASK: Operates controls to cargo transfer pump (push button switch on control panel and cargo valves), following preoverpressure.

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:

Descriptive: Controls termination of cargo transfer operation carefully.

Numerical: Cargo hose rupture does not occur in all cargo transfer shut downs.

Specific: Knowledge of specific pump shut down switches.

General knowledge of cargo pump operation, piping

arrangement, cargo valves, etc.

How to read dials (with decimal scale).

How to operate transfer controls (control panel

switches and cargo valves).

Knowledge of standard operating procedures and manufacturer's recommended working pressure for specific cargo hose.

J-94

TASK CODE: III.F.4	III.F.4								
	WORKER	WORKER FUNCTION LEVEL AND ORIEN	AND ORIEN	TATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	ELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
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	AL: Conduct hazardous
	DAL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.
	GDAL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.
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	ASK CODE: III.F.4 GDAL: Conduct hazardous
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OBJECTIVE:

Terminate cargo transfer operation.

ASK: Operates water cargo pad subsystem controls (control panel pushbuttons and switches) following standard operating procedure, observes cargo tank loading dial, using own judgment and experience, in order to fill the space above a specific chemical cargo with the correct amount of water padding. TASK:

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
 Controls water cargo pad subsystem carefully and correctly. 	How to operate controls to a water cargo pad subsystem.
	How to read dials (with decimal scale).
Numerical:	How to read and follow prescribed procedures.
• In all cases of a specific chemical cargo transfer, the correct amount of water padding is supplied to	Specific:
the space above the liquid in the cargo tank.	How to operate push buttons and switches on specific control panel.
	• Knowledge of water cargo pad subsystem (pumps, pipes, valves, cargo tanks, etc.).
	• Knowledge of chemical cargo requiring water pad
	and hazards (e.g., carbon disulfide's low auto- ignition temperature).
	• Knowledge of specific standard operating procedures.
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	WORKER FUNCTION LEVEL AND ORIENT	AND ORIEN	TATION		MARKER	GENERAL	IENERAL EDUCATIONAL DEVELOPMEN	VELOPMENT
DATA %	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38 50	1	5	28	45	3	3	3	7

Conduct hazardous chemical liquid bulk cargo transfer operations safely.
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subsystem controls (control panel pushbuttons and switches) following standard	por space analyzer dial, in order to fill space above a specific chemical cargo with	
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Car	Ser	
gas	6	ure
Operates inert gas cargo pad su	operating procedure, observes vapor	the correct gas mixture
1 8s	roced	888
erat	18 pl	rect
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TASK:	ope	the

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
Controls inert gas cargo pad subsystem carefully and correctly.	How to operate controls to an inert gas cargo pad subsystem.
Numerical:	How to read dials (with decimal scale). How to read and follow prescribed procedures.
In all cases of a specific chemical cargo transfer, the correct gas mixture padding is supplied to the vapor space above the liquid in the cargo tank.	Specific: • Knowledge of inert gas cargo pad subsystem (inert gas generator, pipes, pumps, etc.).
	• Knowledge of specific chemical cargo's hazards (e.g., flammability, reactivity, toxicity, etc.).
	Control of the Contro
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DATA & PEOPLE & THINGS & INSTRUCTIONS REASONING MATH LANG		WORKER	WORKER FUNCTION LEVEL AND ORIE	AND ORIEN	ENTATION		01/100m	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
	DATA	×	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE

3.8	50	14	5	28	45	3	3	3	7
TASK CODE:	ASK CODE: III.F.6		GOAL:	Conduct hazar	Conduct hazardous chemical liquid bulk cargo transfer operations safely.	liquid bulk car	go transfer ope	erations safely	

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	TASK: Operates controls to cargo displacement inert gas subsystem, following standard operating procedure, using valve controls (push buttons on control panel) and own judgment and knowledge in order to purge chemical liquid cargo from	cares has and wantre from your lines prior to disconnecting cares has and your lines between years! and shore.
	90	0
	20	-

Terminate cargo transfer operations.

OLLECTIVE:

Punctional: Supplies inert gas to cargo and vapor lines properly. Ranoves cargo liquid and vapor from pipe lines in a thorough manner.	PERFORMANCE STANDARDS	TRAINING CONTENT
Removes cargo liquid and vapor from pipe lines in a thorough manner. Numerical: In all cases, liquid and vapor are removed from lines prior to disconnecting shore ties upon completion of cargo transfer. In all cases, liquid and vapor are removed from lines prior to disconnecting shore ties upon completion of cargo transfer. In all cases, liquid and vapor are removed from lines prior to disconnecting shore ties upon completion of cargo transfer. In all cases, liquid and vapor are removed from lines prior to disconnecting shore ties upon completion of cargo transfer. In all cases, liquid and vapor are removed from lines prior to disconnecting shore ties upon completion of cargo transfer. In all cases, liquid and vapor are removed from lines wapor are removed from lines prior to disconnecting shore ties upon completion of cargo transfer. In all cases, liquid and vapor are removed from lines wapor are removed from lines prior to disconnecting shore ties upon completion of cargo transfer. In all cases, liquid and vapor are removed from lines wapor are gas subsystem. In all cases, liquid and vapor are removed from lines wapor panel scargo cargo piping, vapor, pipe cargo values, vapor relief values, etc		Functional:
s cargo liquid and vapor from pipe lines in a shammer. cases, liquid and vapor are removed from lines to disconnecting shore ties upon completion of transfer.	•	• How to control inert gas subsystem.
cases, liquid and vapor are removed from lines to disconnecting shore ties upon completion of transfer.	• Removes cargo liquid and vapor from pipe lines in a	. How to read dials (with decimal scale).
cases, liquid and vapor are removed from lines to disconnecting shore ties upon completion of transfer.	chorough manner.	• How to operate control panel switches.
		Specific:
	In all cases, liquid and vapor are removed from lines prior to disconnecting shore ties upon completion of	Knowledge of standard operating procedures.
 Knowledge of vessel's cargo control panel. Rnowledge of specific chemical cargo's hazards (e.g., reactivity, toxicity, etc.). Knowledge of vessel's cargo piping, vapor, pipe lines, cargo valves, vapor relief valves, etc. 	cargo transfer.	• Knowledge of vessel's inert gas subsystem.
 Knowledge of specific chemical cargo's hazards (e.g., reactivity, toxicity, etc.). Knowledge of vessel's cargo piping, vapor, pipe lines, cargo valves, vapor relief valves, etc. 		Knowledge of vessel's cargo control panel.
• Knowledge of vessel's cargo piping, vapor, pipe lines, cargo valves, vapor relief valves, etc.	de sapada. La separation de tende en montreux, adontes apropriat.	• Knowledge of specific chemical cargo's hazards (e.g., reactivity, toxicity, etc.).
		• Knowledge of vessel's cargo piping, vapor, pipe lines, cargo valves, vapor relief valves, etc.
· 大家有一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们也是一个人,我们也是一个人,我们也是一个人,我们也是一个人,我们也是一个人,我们也是一个人,	A CONTRACTOR OF THE PARTY OF TH	
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rask code: III.F.7	III.F.7								
	WORKER	JORKER FUNCTION LEVEL AND ORIENT	. AND ORIEN	TATION		BEABUM	GENERAL	GENERAL EDUCATIONAL DEVELOPMEN	VELOPMENT
DATA	×	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	TANGUAGE
38	35	VΙ	\$	14	09	3	3	2	7

TASK CODE: III.F.7	III.F.7	GOAL:	Conduct	hazardous	chemical	liquid	bulk	cargo	transfer	Conduct hazardous chemical liquid bulk cargo transfer operations safely.	safely.	164 Sept. 1144
OBJECTIVE:	Terminate cargo transfer operation.	transfe	er opera	tion.						an is almost on an analos) c So , e , pro	
TASK: Ope	TASK: Operates controls to cargo hose handling equipment (winches, ship's tackle, etc.), following standard operating procedure, in order to drain cargo hose.	argo he	ose hand	ling equip	nent (winc	hes, st	s,dp	tackle	, etc.),	following	standard	operating

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive: Positions cargo hose properly.	Functional: • General knowledge of operating principles of vessel's winches, ship's tackle, etc.
Numerical: • In all cases residual liquid cargo is drained properly.	 How to operate ship's cargo hose handling equipment. How to position hose for drainage.
	 Specific: Knowledge of specific cargo hose handling equipment (windlass, ship's tackles, etc.), cargo tanks, shore nine lines and drainage system.
DANGE NE	• Knowledge of standard operating procedures.
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WORKER FUNCTION LEVEL AND ORIENTATIO		WARE	GENERAL	GENERAL EDUCATIONAL DEVELOPMEN	EVELOPMENT
DATA % PEOPLE %	THINGS %	INSTRUCTIONS	REASONING	MATH	LANGUAGE

£ 3	100	and the state of t	d shore ant and procedure,
3	ations safely.		vent piping and etc.), equipmendard operating
2	transfer oper		ween vessel's ols (wrenches, following stan
2	GOAL: Conduct hazardous chemical liquid bulk cargo transfer operations safely.	ata.	Disconnects flanged joint between cargo hose and pipeline manifold and between vessel's vent piping and shore vapor return line, following standard operating procedure, using available tools (wrenches, etc.), equipment and lifting gear, such as ship's tackle, wears protective clothing when required, following standard operating procedure, in order to uncouple cargo transfer system between vessel and shore.
75	chemical	record d	d pipelin cedure, ve clothi
2A	uct hazardous	operations and record data.	n cargo hose and pipeline manifo d operating procedure, using av wears protective clothing when system between vessel and shore.
5	10AL: Cond		between standard tackle, w ansfer sy
14		Terminate cargo transfer	Disconnects flanged joint between Wapor return line, following standar lifting gear, such as ship's tackle, in order to uncouple cargo transfer
20	III.F.8	Termin	nnects fi urn line, ear, such to uncoup
38	TASK CODE: III.F.8	ODJECTIVE:	TASK Disco

	おおき		PERFORM	PERFORMANCE STANDA	DARDS		#
J-9	Descriptive:	ptive:					Functional:
	ы	quipment	Equipment is properly disconnected.	y disconne	cted.		How to read and follow procedures for disconnect-
	• A G	Arrangement procedures.	its complete	ed thoroug	Arrangements completed thoroughly, according to procedures.	ng to	ing equipment. How to handle equipment and tools while wearing
	Numerical:	<u>cal</u> :					personal protection equipment.
		azardous nd takes	In all cases where specific chemical can hazardous to health, wears protective and takes adequate safety precautions.	pecific ch wears pro afety prec	In all cases where specific chemical cargo is hazardous to health, wears protective clothing and takes adequate safety precautions.	hing	Specific: • Knowledge of procedures for disconnecting cargo hose and vapor return subsystem.
							Knowledge of cargo lines and vapor return lines.
1.44			of Thurs og in mississ	Park I Carrie			• Knowledge of use of personal protection clothing
				25.03	STATE SERVICE		other health hazards).
							• Knowledge of hazardous properties of specific
				99			Chemical Cargo.
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ISK CODE:	TASK CODE: IV.A.1								
	WORKER	NORKER FUNCTION LEVEL AND ORIENTATI	AND ORIEN	TATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	×	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	90	14	\$	2B	45	3	7	3	7

TASK CODE: IV.A.	IV.A.1	GOAL:	Control	ntrol hazardous chemical liquid bulk cargo condition during tankship's transit.	chemical	liquid	bulk ca	argo c	ondition	during	tankshi	ip's th	ransit.	
OBJECTIVE:	Maintain cargo conditions	condit	ions.			ė			•			13077	September 1	

TASK: Operates cargo cooling/heating subsystem controls (push buttons and switches), observes cargo temperature dials, corrects out-of-limits situation, following standard operating procedure, using own judgment and knowledge in order to maintain a specific chemical cargo temperature below a specified limit.

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
 Controls cargo cooling/heating subsystem carefully and accurately. 	How to operate cargo cooling/heating subsystem controls on a control panel under both normal and outof-limits conditions.
Numerical:	. How to read dials and gages (readings in decimals).
 The temperature of a specific chemical cargo is maintained within specified limits at all times during tankship transit. 	How to read and follow prescribed procedures. Specific:
• In all cases of cargo overheating or overcooling, correct, immediate action is taken to return cargo	Knowledge of cargo cooling/heating system.
temperature to normal condition.	• Knowledge of specific chemical cargo's physical and chemical properties and hazards (e.g., reactivity, polymerization rate as a function of temperature, chemical liquid's vapor pressure vs. temperature relationship, etc.).
	• Knowledge of standard operating procedures and specific chemical cargo's temperature limits.
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TASK CODE:	IV.A.2	FINCTION 1 EVE	S AND COLE	TATION			CENEDAL	CENERAL EDICATIONAL DEVEL DESERT	VELOPMENT
	WORKER	WURKER FUNCTION LEVEL AND URIENT	EL AND URIER	HATION		WORKER	GENERAL	EDUCATIONAL DE	VELUTMEN
DATA	*	PEOPLE	×	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	20	14	5	2A	45	3	4	3	4
TASK CODE:	IV.A.2		GOAL: Cont	GOAL: Control hazardous chemical	18 chemica	liquid bulk	cargo condition during	ing tankship's	s transit.
OLUECTIVE:	Maint	Maintain cargo conditions.	onditions.	,				100 TO 10	The Yampon's
TASK: Measu intervals sampling vent deco	ures/chec s, follow and test	TASK: Measures/checks chemical stabilizer intervals, following standard operating sampling and test equipment in order to vent decomposition/polymerization of a	stabilizer d operating in order to ation of a	 	additive referring whether a	inhibitor additive concentration in a specific chemical cargo at periodic procedure, referring to manufacturer's specification, using available cargo determine whether additive has deteriorated and whether more is needed to pre-pecific chemical cargo.	specific chemic specification, rated and wheth	using avail	periodic able cargo eeded to pre-
		PERFORMANCE STANDARDS	E STANDARD	9			TRAINING CONTENT	INTENT	
Descriptive:	ive:			tille den bel	0.000	Functional:	ado daged, gen miner	Section and texas	
8	ompletes	Completes tests accurately and	ately and	thoroughly.		How to me concentra	How to measure chemical stabilizer/inhibitor concentration using sampling and test equipment.	stabilizer/i	inhibitor st equipment.
•	ompletes	Completes tests when required.	required.			How to determ deteriorated.	How to determine if stabilizer/inhibitor has deteriorated.	bilizer/inhib	itor has
Numerical: Zero	al: ero compl.	cal: Zero complaints on accuracy of	curacy of	tests.	John of	• How to re	ad and follow m	manufacturer'	How to read and follow manufacturer's instructions.
					A COLUMN TO THE	Knowledge	Knowledge of prescribed procedures.	procedures.	
	To delicate					. Knowledge stabilize	Knowledge of specific chemical cargoes requiring stabilizer/inhibitor.	hemical cargo	es requiring.
						• Knowledge	Knowledge of specific sampling and test equipment.	ampling and t	est equipment.
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TASK CODE: IV.A.3	IV.A.3								
	WORKER	WORKER FUNCTION LEVEL AND ORIENT	AND ORIEN	TATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	TANGUAGE
38	09	14	5	28	35	3	3	3	7
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TASK CODE: IV.A.3	IV.A.3	60AL: Control hazardous chemical liquid bulk cargo condition during tankship's transit.	hazardous	chemical	liquid b	oulk ca	rgo condit	ton during	tankship	s transit	18 S. S. S. S. S.
OBJECTIVE:	Maintain cargo conditions	onditions.				15 m	A TO A STATE	do silleda anazio	nat opin kongrad foliamado silitor		
TASK: Op a specific to standa	TASK: Operates and controls pump (starts, stops, controls speed) which circulates a stabilizer/inhibitor additive into a specific chemical cargo, uses push button controls on control panel, observes operating pressures and flow rate, refet to standard operating procedure and manufacturer's certificate which specifies action to be taken should length of voyage exceed the lifetime of the additive in order to maintain stability of a specific chemical cargo during vessel	pump (starts, sees push buttuine and manufactor) if the additiv	stops, co on control acturer's e in order	ntrols spe s on contr certificat to mainta	ed) whicol panele which in stabi	ch circ l, obse specif llity o	ulates a s rves opera les action f a specif	tabilizer/ ting press to be tal	rts, stops, controls speed) which circulates a stabilizer/inhibitor additive into button controls on control panel, observes operating pressures and flow rate, refers anufacturer's certificate which specifies action to be taken should length of itive in order to maintain stability of a specific chemical cargo during vessel	additive low rate, length of	into refers

hich specifies action to be taken should length of	stability of a specific chamber web, we was	TRAINING CONTENT
to standard operating procedure and manufacturer's certificate which specifies action to be taken should length of	voyage exceed the lifetime of the additive in older to maintain transit (1,p. prevent hazardous decomposition).	PERFORMANCE STANDARDS

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
Operates and controls pump correctly.	How to operate pump controls.
• Correct amounts of stabilizer/inhibitor are properly circulated into cargo.	General knowledge of pump operating principles. How to ead and follow manufacturer's instructions.
Numerical:	Specifics
• In all cases where length of voyage exceeds lifetime of stabilizer/inhibitor, proper amount of additive	• Knowledge of specific pumps, valves, pipelines used to circulate chemical additives.
	• Knowledge of specific chemical cargoes that require stabilization/inhibition.
	• Knowledge of correct stabilizer/inhibitor required for a specific chemical cargo.
STATES OF THE ST	• Knowledge of inhibitor/stabilizer manufacturer's certificate.
	Knowledge of specific standard operating procedures.
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	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	EL AND ORIEN	TATION		azagom	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	×	THINGS	×	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	09	1A	2	28	35	3	7	3	7
TASK CODE:	IV.A.4		60AL: Control		hazardous chemical	liquid bulk cargo	condition during	ng tankship's	transit.
OBJECTIVE:	Mainta	Maintain cargo conditions.	nditions.	o 15			の は 一		2 × 5 / 5 2 × 1 × 4 5
ASK: Opera opera supply ra	tes/contri ting proce te to min.	TASK: Operates/controls inert gas cargo pad operating procedure, observes vapor l supply rate to minimize creation of stati amount of positive pressure above a speci	gas cargo i rves vapor fon of sta	1 004	n using con i analyzer ifty, usin	subsystem using control panel push buttons and switches, following standard loading and analyzer dials, supplies a sufficient amount of inert gas, controls ic electricity, using own judgment and knowledge in order to maintain a small lift chemical cargo to compensate for normal losses.	uttons and switches, following standard sufficient amount of inert gas, contro knowledge in order to maintain a small normal losses.	ches, following out of inert in the control of the	following standard inert gas, controls o maintain a small
		PERFORMAN	PERFORMANCE STANDARDS	8			TRAINING CONTENT	ONTENT	
Descriptive:	ive:	1 mag 2 m		· 如此是一次是是此条件		Functional:			
3 3	Controls in	Controls inert gas cargo padding correctly.	rgo paddin	g carefully and	and	• How to operatem.	operate controls to an inert gas:em.	to an inert g	as cargo pad
Numerical:						General kn gas cargo	General knowledge of operating principles of inert gas cargo pad subsystem.	rating princi	ples of iner
		and the state of t	f inort 00	e te added to careo	o careo	How to read dials.	id dials.		
• ∃ f	lage spac	es to comp	ensate for	11,000 to 11,000	ses when	\$	read and follow standard operating procedures.	tandard operat	ing procedur
5	they occur.					Specific:			
•	all case	In all cases, supply rate is controlled w prescribed limits to minimize creation of	rate is confinitate c	In all cases, supply rate is controlled within prescribed limits to minimize creation of	htn	How to ope specific c	How to operate push buttons and switches on specific control panel.	ons and switc	hes on a
. 6.	static electricity.	ctricity.				Knowledge generator,	Knowledge of specific inert gas generator, pipes, pumps, etc.).		subsystem (inert gas
						• Knowledge	Knowledge of prescribed procedures.	procedures.	
						• Knowledge	Knowledge of basic principles of static electricity.	iples of stat	ic electrici
						• Knowledge	Knowledge of specific chemical cargo's properties and hazards (e.g., autoignition temperature, flam	emical cargo's nition temper	properties
						mability, etc.).	etc.).		TANKE OF

TASK CODE: IV.A.5	IV.A.5		9						
	WORKER	VORKER FUNCTION LEVEL AND ORIE	AND ORIEN	ENTATION		WORKER	GENERA	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
38	09	1A	5	28	35	3	3	£	7

TASK CODE: IV.A.	IV.A.5	GOAL: Conf	Control	atrol hazardous chemical liquid bulk cargo condition during tankship's transit.	chemical	liquid	bulk c	argo c	ondition	during	tankship'	s transit	•
OLUECTIVE:	Maintain cargo conditions.	conditi	ons.										

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proce	th ve	
operating	tmosphere	1000年ませんが
standard	n inert a	
Operates/controls inert gas subsystem using push buttons on control panel, following standard operating procedure,	observes vapor space analyzer dial, using own judgment and knowledge in order to maintain an inert atmosphere in void	
1 panel,	order to	Deal Load
on contro	ledge in	7.06
buttons	and know.	al cargo.
sing push	judgment	a specific chemical cargo.
bsystem u	umo guist	a specif
gas sul	dial,	taining
s fnert	nalyzer	nks con
/control	space a	cargo ta
Operates	es vapor	spaces around cargo tanks containing
TASK:	observ	spaces

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
Operates inert gas subsystem carefully and correctly.	• How to operate controls to an inert gas subsystem.
Numerical:	 General knowledge of operating principles of inert gas subsystem.
An inert atmosphere is maintained around cargo tanks during vessel transit in all cases of shipping a specific chemical cargo.	 How to read dials. How to read and follow standard operating procedures. Specific:
	 How to operate push buttons and switches on a specific control panel.
	 Knowledge of specific inert gas subsystem (inert gas generator, pipes, pumps, etc.).
	 Knowledge of specific chemical cargo's hazards (e.g., autoignition temperature, wide explosive
n and a second a second and a second a second and a second a second and a second and a second a second a second a second a second and a	range, toxicity, etc.).
	• Knowledge of specific standard operating procedures.
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US REASONING MATH		WORKER	ORKER FUNCTION LEVEL AND ORIE	AND ORIENTA	TATION		93/400	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
	DATA	*	PEOPLE	×	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE

TASK CODE: IV.B.1	GOAL: Control hazardous chemic	GOAL: Control hazardous chemical liquid bulk cargo condition during tankship's transit.
OBJECTIVE: Update cargo log.	108.	ALIEN STATE SALESTON SETTING BETTER TO SET SALESTON TO SET SALESTON SET
TASK Evaluates information about cargo	n about cargo condition during voy	Evaluates information about cargo condition during voyage on a periodic basis (daily, weekly, etc.), following stand-
additive concentration appressure in void spaces,	s a function of time since cargo cargo temperature, cargo pressure	additive concentration as a function of time since cargo loading, inert gas cargo pad pressure and analysis, inert gas pressure in void spaces, cargo temperature, cargo pressure, and water pad depth, in order to monitor cargo condition
during transit and record cargo data. PERFORMANCE STANDARD	record carro data. Performance Standards	TRAINING CONTENT
Descriptive:	comes a supervision and some supervision of some	Functional:
Records information accurately	accurately	How to gather information from several sources.
Record keeping is don consistent manner.	Record keeping is done on a periodic basis in a consistent manner.	How to record information in a log book.
		And to evaluate cargo control data.

during transit and record cargo data	and record c	argo data.	The second secon			
	PERFORMA	PERFORMANCE STANDARDS			TRAINING CONTENT	
Descriptive:	sportinedes às	00300000000000	SUCCES HESIAT	Functional:	s potate predes promes as	And Control
• Records in	Records information accurately	urately		How to gat!	How to gather information from several sources.	sources.
Record keeping is consistent manner.	Record keeping is done on a periodic basis in a consistent manner.	on a periodi	c basis in a	How to eval	How to record information in a log book. How to evaluate cargo control data.	k.
• Evaluation	s are percept.	ive, accurat	Evaluations are perceptive, accurate, and thorough.	9		
Numerical: No more th	rical: No more than X errors or omissions of important	r omissions	of important	• Knowledge	Knowledge of format requirements for log book entries.	log book entries.
informatio	information in XX of the entries.	e entries.		Knowledge of	Knowledge of standard operating procedures.	lures.
				• Knowledge variables	Knowledge of allowable variation of cargo containment variables (such as cargo stabilizer/inhibitor con-	argo containment hhibitor con-
				cargo tempe	cargo temperature, etc.).	
35 70						
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TASK CODE: V.A.1	V.A.1								
	WORKER	ORKER FUNCTION LEVEL AND ORI	AND ORIENT	ENTATION		MURKER	GENERA	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	*	THINGS	%	INSTRUCTIONS	REASONING	HIVW	LANGUAGE
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	Protect life and property from cargo accidents.
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	ASK CODE: V.A.1 GOAL: Protect life a

Control hazardous chemical spills.

OBJECTIVE:

TASK: Operates controls (push buttons) on control panel to close cargo control valves, or manually stops pump(s), closes pipeline and manifold valves, and secures vapor return system, using onboard personnel and shoreside personnel in the event remote controls are inoperative, following emergency procedures in order to stop cargo transfer operations.

PERFORMANCE STANDARDS		TRAINING CONTENT
Descriptive:	Functional:	
 Promptly secures cargo operations upon learning of spill. 	Understanding components of	Understanding of the principles, operations and components of chemical liquid cargo handling
 Correctly and expeditionsly operates remote valve controls. 	system, such as pumps, vahandling instrumentation.	system, such as pumps, valves, piping, and cargo handling instrumentation.
 Concisely and clearly directs personnel. Clears liquid and vapor from lines after shut down. 	How to close cargo co controls in cargo con at location of valve.	How to close cargo control valves using remote controls in cargo control room or local controls at location of valve.
Numerical:	How to direct person handling operations.	How to direct personnel to assist in securing cargo handling operations.
• In all cases, the valves are promptly and completely closed, using either local or remote controls.	Specific:	
	Knowledge of	Knowledge of vessel's cargo handling system.
	• Knowledge of rical liquid ca	Knowledge of vessel's procedures for securing chem- ical liquid cargo operations.
	CONTROL LATING	
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illies x inwrnutions reasoning math 1.		WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	EL AND ORIENT	TATION			GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
10 20 40 10 40 10 40 10 40 10 40 4	DATA	×	PEOPLE	×	THINGS	×	WURKER	REASONING	MATH	LANGUAGE
NE: V.A. 2 GOAL: Protect life and property from Common Control hazardous chemical spill. Speaks on telephone or public address communication system folicy onboard and shoreside personnel of the spill and potential fy onboard and shoreside personnel of the spill and potential france reproper use of communication system discipline procedures. Ensures proper use of communication system discipline procedures. Special: Notifies all appropriate personnel as soon as possible after discovery of spills.	2	20	2	40	10	07	2	2	-	2
Speaks on telephone or public address communication system folify omboard and shoreside personnel of the spill and potential riptive: Communication is prompt and effective. Ensures proper use of communication system discipline procedures.	ASK CODE:	V.A. 2		GOAL: Prot	ect life and	d property	from cargo acciden	nts.		
Speaks on telephone or public address communication system folicy onboard and shoreside personnel of the spill and potential riptive: Communication is prompt and effective. Pline procedures. Specifies all appropriate personnel as soon as possible after discovery of spills.	BLECTIVE:	Contr	ol hazardou	s chemical			TO SEED TOWARD A	AND THE PROPERTY OF THE PARTY O		
PERFORMANCE STANDARDS ation is prompt and effective. proper use of communication system disciocedures. atia appropriate personnel as soon as after discovery of spills.	ASK: Speak notify on	is on tel	Lephone or p	ublic addr	of		tem following standential hazard.	dard operating p	rocedure, in	order to
proper use of communication system disciocedures. Special appropriate personnel as soon as after discovery of spills.	10 S. P. Part	a seption	PERFORMAN	CE STANDARDS				TRAINING CO	NTENT	
s proper use of communication system disciprocedures. ss all appropriate personnel as soon as le after discovery of spills.	Descripti • Commu	ve: nication	i is prompt	and effect	ive.		Functional: • How to use	telephone and pu	blic address	commutest
es all appropriate personnel as soon as le after discovery of spills.	• Ensur pline	procedu	er use of co	mounication		sci-	Specific:			
as soom as	Numerical	•					• Knowledge o	f vessel's commu	mications sy	stem and
	• Notif possi	ites all ble afte	appropriate ir discovery	personnel	as soon as		procedures.			
ALTERNATION OF THE PROPERTY OF							14			

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	VELOPMENT	LANGUAGE	4
	GENERAL EDUCATIONAL DEVELOPMENT	MATH	3
	GENERAL	REASONING	4
	WORKER	INSTRUCTIONS	S
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	ITATION	THINGS	1.8
		*	10
	WORKER FUNCTION LEVEL AND ORIEN	PEOPLE	2
V.A. 3	WORKER	×	80
TASK CODE: V.A. 3		DATA	4

TASK CODE: V.A. 3	V.A. 3	60AL: Protect life and property from cargo accidents.
OBJECTIVE:	Control hazardous chemi	us chemical spill.
TASK: Evalupropertic	lates type and exters and hazards of caronditions, procedure to determine source	TASK: Evaluates type and extent of spill and capabilities of onboard personnel and equipment, using own knowledge of properties and hazards of cargo, layout and structure of cargo containment system, available personnel and equipment, weather conditions, procedures specified in ship operations manual, and advice from other personnel, when necessary, in order to determine source and best method to control and contain spill.

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
. Analyzes accurately the capabilities of onboard	. How to control and contain hazardous chemical spills.
personnel and equipment.	How to evaluate the spill control and containment

chemical spil	and containment	capabilities of onboard personnel and equipment.
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Determines correctly the source of the leak.	Spec	In all cases, determines the best method to control e Knowledge of vessel's spill control and containment and contain spill.	• Knowledge of vessel's procedure for controlling and containing hazardous cargo spills.	Compared to the compared to th		A STATE OF THE STA	THE RESIDENCE OF THE PROPERTY OF THE PARTY O	
		mines			-03		MANAGER PERSONAL SAMPLEMENT WAS	

Evaluation of various spill control and containment

alternatives is thorough.

	WORKER	WORKER FUNCTION LEVEL AND ORIENTA	EL AND ORIEN	TATION		92/100m	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	ELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
4	25	S	9	18	10	\$	4	3	4
TASK CODE:	V.A.4		GOAL: Protect	ect life and	property	from cargo accidents.	.8.		
OBJECTIVE:	Control	Control hazardous chemical spill.	chemical	sp111.			Boson St. Loaner	ANTE FOR EINE	ada
TASK: Dire fire resul	cts perso Lting from	TASK: Directs personnel in the preparation fire resulting from chemical spill.	e preparat spill.		and positioning of	f fire extinguishing hoses in order to prepare for possible	s hoses in orde	r to prepare	for possible
		PERFORMAN	PERFORMANCE STANDARDS				TRAINING CONTENT	NTENT	
Descriptive:	ve:					Functional:			
• Fire corre	fighting ctly and tion of p	Fire fighting hoses are prepared and correctly and promptly. Direction of personnel is clear and	prepared an	Fire fighting hoses are prepared and positioned correctly and promptly. Direction of personnel is clear and unambiguous.	G	How to direct positioning c contain chemi	How to direct personnel in the preparation and positioning of fire fighting hoses to control and contain chemical liquid spills.	the preparati g hoses to co lls.	on and atrol and
Numerical:						Specific:	TO THE STATE OF		
. TTV	ecessary	and approp	riate equi	All necessary and appropriate equipment is assembled.	embled.	Knowledge of and position:	Knowledge of vessel's ilre ilgnting equipment. Knowledge of vessel's procedures for making ready and positioning fire fighting hoses.	fighting equi dures for mak ng hoses.	pment. Ing ready
						作品ではいる中では			

TASK CODE: V.A.5	V.A.5								
	WORKER	WORKER FUNCTION LEVEL AND ORIEN	L AND ORIEN	ITATION		MORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
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OBJECTIVE:

Control hazardous chemical spill.

TASK: Directs personnel inclean-up of area in the vicinity of cargo spill and the "knocking down" of hazardous chemical vapor with water, using onboard communications equipment, when necessary, and following standard operating procedure in vessel's operations manual, using judgment in minimizing the personnel hazard and potential of fire in order to flush chemical cargo spill area.

Area is promptly flushed with water from firemain system. Exercises extreme care while flushing the spilled cargo. Exercises extreme cargo while flushing operation to ergon. Exercises extreme cargo expense. Exercises extreme cargo cargo. Exercises extreme cargo of with water and ignition probabilities of various hazardous chemical spilled. Exercises extreme cargo cargo expense. Exercises extreme cargo expense. Exercise extrem	PERFORMANCE STANDARDS	ARDS	1 3 May 2 May 1	TRAINING CONTENT	ı
em. cises extreme care while flushing the spilled argo. cises extreme care while flushing the spilled cargo. cises extreme care while flushing the spilled cargo. How to operate marine firemain systems. How to operate marine firemain systems. How to operate warine firemain systems. How to operate warine firemain systems. How to operate warine firemain systems. Specific: Knowledge of vessel's general arrangement and firemain system. Knowledge of vessel's procedure for flushing spilled cargo.	Descriptive:		Functional:		
cises extreme care while flushing the spilled How water affects vaporization rates and igniprobabilities of various hazardous chemical sees, the flushing operation does not e hazardous cargo exposure to personnel. How water affects vaporization rates and igniprobabilities of various hazardous chemical sees, the flushing operation does not e hazardous cargo exposure to personnel. Knowledge of vessel's general arrangement and firemain system. Knowledge of vessel's procedure for flushing spilled cargo.	 Area is promptly flushed with a system. 	water from firemain	How to direct flush any not the second flush and the second flush an	t personnel in emer n-contained spilled	rgency situation to d cargo.
How water affects vaporization rates and ignipolabilities of various hazardous chemical s Specific:	Exercises extreme care while fl	lushing the spilled	. How to opera	te marine firemain	systems.
probabilities of various hazardous chemical s 11 cases, the flushing operation does not 12 cases, flusting with water is not permitted 13 cases, flusting with water is not permitted 14 cases, flusting with water is not permitted 15 chemical cargo is water reactive. 16 chemical cargo is water reactive. 17 cases, flusting operation does not 18 chowledge of vessel's general arrangement and 19 cases, flusting operation does not 20 chowledge of vessel's procedure for flushing spilled cargo.			How water af	fects vaporization	rates and ignition
<pre>11 cases, the flushing operation does not e hazardous cargo exposure to personnel. 12 cases, flusing with water is not permitted c chemical cargo is water reactive. e chemical cargo is water reactive. spilled cargo.</pre> Specific: Knowledge of vessel's general arrangement and firemain system. Knowledge of vessel's procedure for flushing spilled cargo.	Numerical:		probabilitie	s of various hazard	dous chemical spill
 Knowledge of vessel's general arrangement and firemain system. chemical cargo is water reactive. Knowledge of vessel's procedure for flushing spilled cargo. 	• In all cases, the flushing open	ration does not	Specific:		
e chemical cargo is water reactive. • Knowledge of vessel's procedure for flushing spilled cargo.	In all cases, flusing with water	er is not permitted	• Knowledge or firemain sys	vessel's general a tem.	arrangement and
THE RESTRECT OF THE PROPERTY O	where chemical cargo is water r	reactive.	• Knowledge of spilled carg	vessel's procedure o.	e for flushing
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idents. Idents. Idents. TRAINING CONTENT TRA		WORKER	WORKER FUNCTION LEVEL AND ORIENT	L AND ORIER	ITATION		a your	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
TWE: Control hazardous chemical spill. Directs personnel in the disconnection of cargo lines and following standard operating procedure in vessel's operations of from terminal. FERFORMANCE STANDARDS Exiptive: Lines are disconnected promptly and carefully in view of the dangerous situation. Directs personnel clearly and effectively. Cargo and vapor return lines are free of cargo and vapor prior to commencing the disconnect procedure. Exical: All cargo lines and vapor return lines are disconnected.	DATA	*	PEOPLE	×	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
TIVE: Control hazardous chemical spill. Directs personnel in the disconnection of cargo lines and following standard operating procedure in vessel's operations from terminal. FERFORMANCE STANDARDS FINAL Lines are disconnected promptly and carefully in view of the dangerous situation. Directs personnel clearly and effectively. Cargo and vapor return lines are free of cargo and vapor prior to commencing the disconnect procedure. FILLIAL ALLI CARGO LINES AND	4	25	2	65	1	10	2	7	3	4
Directs personnel in the disconnection of cargo lines and following standard operating procedure in vessel's operations ifrom terminal. PERFORMANCE STANDARDS Lines are disconnected promptly and carefully in view of the dangerous situation. Directs personnel clearly and effectively. Cargo and vapor return lines are free of cargo and vapor prior to commencing the disconnect procedure. PERFORMANCE STANDARDS Function of the dangerous situation. All cargo lines and vapor return lines are disconnected.	7ASK CODE:	V.A.6		GOAL: Prof	11fe	d property	from cargo accident	ts.		*
Directs personnel in the disconnection of cargo lines and from terminal. PERFORMANCE STANDARDS Lines are disconnected promptly and carefully in view of the dangerous situation. Directs personnel clearly and effectively. Cargo and vapor return lines are free of cargo and vapor prior to commencing the disconnect procedure. PERFORMANCE STANDARDS Function of cargo and vapor return lines are disconnect procedure. All cargo lines and vapor return lines are disconnected.	DECTIVE:	Contro	1 hazardous	chemica			Output Brother R. T.	and make the s	polosieus e Desugenta	
PERFORMANCE STANDARDS are disconnected promptly and carefully in f the dangerous situation. s personnel clearly and effectively. and vapor return lines are free of cargo and prior to commencing the disconnect procedure. rgo lines and vapor return lines are nected.	from trom	Directs parting stand terminal.	ersonnel in lard operat	the disc	connection o	f cargo 14 sel's oper	nes and vapor return ations manual in ord	n lines betweer der to prepare	shoreside ar	nd vessel,
are disconnected promptly and carefully in f the dangerous situation. s personnel clearly and effectively. and vapor return lines are free of cargo and prior to commencing the disconnect procedure. rgo lines and vapor return lines are nected.			PERFORMANC	ESTANDARD	S PERMITTERS	s consider to		TRAINING CO	NTENT	ALTERNATION OF THE PERSON OF T
f the dangerous situation. s personnel clearly and effectively. and vapor return lines are free of cargo and prior to commencing the disconnect procedure. rgo lines and vapor return lines are nected.	Descripti	i.		Line	BD>-00/17/0		Functional:	April a comp		1.
and vapor return lines are free of cargo and prior to commencing the disconnect procedure. rgo lines and vapor return lines are nected.	• Lines view • Direc	of the dar ts person	onnected pr ngerous sit nel clearly	omptly an unation.	nd carefully setively.	9	from shorests How to direct	nnect cargo and de.	disconnect c	n lines argo lines.
rgo lines and vapor return lines are nected.	• Cargo vapor	and vapo prior to	r return 11 commencing	i the dis	free of carg	edure.	Specific: • Knowledge of	the vessel's	argo transfe	r system.
	• All c	argo line mected.	s and vapor	return	lines are		• Knowledge of ing cargo lin	the vessel's i	procedures foreturn lines.	r disconnect
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	WORKER	WORKER FUNCTION LEVEL AND ORIENTATI	VEL AND OR	IENTATION			GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	EVELOPMENT
DATA	×	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
4	65	4A	25	14	10	2	2	4	4
TASK CODE:	V.A.7		GOAL: P	Protect life	and property	ty from cargo accidents.	ents.		
OLUECTIVE:	Contr	Control hazardous chemical sp	ous chemi	cal spill.					
TASK: Inspended, f	cts and ollowing	isk: Inspects and examines area in vicinitaneded, following standard procedure, in	area in v procedur	cinity of e, in order	hazardous c to determin	Inspects and examines area in vicinity of hazardous chemical spill, consulting with engineering personnel led, following standard procedure, in order to determine the extent of structural damage.	ulting with engi ructural damage.	ineering pers	somel as grescourses.
	S SITTOR	PERFORMA	PERFORMANCE STANDARDS	RDS	î dû		TRAINING CONTENT	ONTENT	
Descriptive: Accurate	riptive: Accurately de damage to the	riptive: Accurately determines the extent of damage to the vessel's hull.	the exten	t of structural	ural	Functional: • How to deterate the value of	tional: How to determine the structural adequacy of a vessel after the vessel's hull has sustained damage.	ctural adequases sustained	acy of a vesse damage.
• Effective perso	nnel to	consults wreevaluate	axtent of to facili	Effectively consults with the appropriate engineering personnel to evaluate extent of structural damage to vessel's hull and how to facilitate repairs.	engineering damage to	• •	Understands the principles of ship structures. Understands procedures on damage to tank ships.	s of ship str damage to ta	ructures. ank ships.
Numerical:	cases,	rical: In <u>all</u> cases, procedures are followed	es are fo	llowed.		Specific: • Knowledge ties, and	<pre>ific: Knowledge of vessel's structural design, capabili- ties, and limitations.</pre>	uctural desi	gn, capabili-
						• Knowledge the extent	Knowledge of the vessel's procedure for determining the extent of structural damage.	procedure for	or determining
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TASK CODE: V.B. 1	V.B.1								
	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	AND ORIENT	TATION		WARKED	GENERAL	ENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	×	THINGS	*	INSTRUCTIONS	REASONING	MATH	TANGUAGE
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	MONKE	MONKEN FORGING LEVEL AND UNIERIATION		HERITAINOR		WADER		The state of the s	
DATA	*	PEOPLE	*	THINGS	×	INSTRUCTIONS	REASONING	MATH	LANG
38	10	3	20	28	70	7	7	3	7
TAKE COLD .				משבער השבער	Tedore Dr	DISCREDE CALCULATION ACCIDE	encs.		

ly stops pump(s), closes sonnel and/or shoreside ions when learning of	
gets assistance from onboard peler to stop cargo transfer opera	The state of the s
ons) on control panel to close secures vapor return system, a emergency procedures, in ord	
TASK: Operates controls (push buttons) on control panel to close cargo control valves, or manually stops pump(s), closes pipeline and manifold valves, and secures vapor return system, gets assistance from onboard personnel and/or shoreside personnel, as necessary, following emergency procedures, in order to stop cargo transfer operations when learning of	fire aboard tankship.

Initiate fire fighting onboard tankship.

OLUECTIVE:

Promptly secures all cargo operations upon learning of outbreak of fire. Correctly and expeditiously operates the remote valve controls. Correctly and expeditiously operates the remote valve controls. Correctly and expeditiously operates the remote valve controls. Correctly and expeditiously operates the remote valve controls where appropriate, or when the remote valve controls are inoperable. Concisely and clearly directs personnel. Concisely and clearly directs personnel. In all cases, the valves are to be promptly and completely closed, using either local or remote controls. Concisely and clearly directs personnel. Concisely and expeditiously operations are inoperable. Concisely and expeditiously operations. Concisely and expeditiously operations, and cargo handing system controls are inoperable. Concisely and expeditiously closes the cargo control valves using remote controls are inoperable. Concisely and clearly directs personnel. Concisely and cargo control valves using remote are controls are cargo control valves using remote are controls. Concisely and cargo control c	PERFORMANCE STANDARDS	TRAINING CONTENT
break of fire. tly and expeditiously operates the remote controls. tiously closes the cargo control valves, using cal controls where appropriate, or when the valve controls are inoperable. ely and clearly directs personnel. cases, the valves are to be promptly and tely closed, using either local or remote ls.	Descriptive:	Functional:
tiy and expeditiously operates the remote controls. tiously closes the cargo control valves, using cal controls where appropriate, or when the valve controls are inoperable. ely and clearly directs personnel. cases, the valves are to be promptly and tely closed, using either local or remote 18.	 Promptly secures all cargo operations upon learning of outbreak of fire. 	• Understanding of the principles, operations, and components of chemical liquid cargo handling system,
tiously closes the cargo control valves, using cal controls where appropriate, or when the valve controls are inoperable. ely and clearly directs personnel. cases, the valves are to be promptly and tely closed, using either local or remote ls.	xpeditiously operates	such as pumps, valves, piping, and cargo nanding instrumentation.
ely and clearly directs personnel. cases, the valves are to be promptly and tely closed, using either local or remote 1s.	• Expeditionsly closes the cargo control valves, using the local controls where appropriate, or when the remote valve controls are inoperable.	How to close cargo control valves using remote controls in cargo control room or local controls at location of valve.
cases, the valves are to be promptly and tely closed, using either local or remote 1s.	• Concisely and clearly directs personnel.	How to get personnel to assist in securing cargo handling operations.
	Numerical:	Specific:
	completely closed, using either local or remote controls.	 Knowledge of vessel's cargo handling system. Knowledge of vessel's procedures for securing hazardous chemical cargo operations.
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	WORKER	VORKER FUNCTION LEVEL AND ORI	AND ORIEN	ENTATION		a subsection	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	SONIHL	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
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	tect life and property from cargo accidents.
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OBJECTIVE:

Initiate fire fighting onboard tankship.

TASK: Speaks to personnel on telephone and/or public address communication system, manipulates switches, rotary dials, and push buttons, following standard operating procedure, in order to notify both onboard and shoreside personnel of the fire or potential fire.

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
Communication is prompt and effective. Ensures proper use of communication system	How to use telephone and public address communication systems.
procedures.	Specific:
• Is alert to responding to hazardous situation.	• Knowledge of vessel's communications systems and
Numerical:	procedures.

Notifies all appropriate personnel as soon as possible after discovery of fire.

ASA COUE:	TASK CODE: V.B.S.	B 3 Norker function level and orien	AND ORIEN	MTATION		МОВИСЬ	GENERA	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	×	THINGS	×	INSTRUCTIONS	REASONING	MATH	LANGUAGE
4	80	2	10	1A	10	5	7	3	4

TASK CODE: V.B.3	V.B.3	GOAL:	Protec	. 11fe	and pr	operty	from carg	OAL: Protect life and property from cargo accidents.	8.				
DEJECTIVE:	Initiate fire fighting onboard tankship.	ghting	onboard	tanks	htp.								
rask: Eval	ASK: Evaluates type and extent	nt of f	tre and	capab	ilities	of ft1	e fightin	of fire and capabilities of fire fighting personnel and equipment, using own knowle	1 and	equipment	gulsu ,	E S	movle

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MASK: Evaluates type and extent of fire and capabilities of fire fighting personnel and equipment, using own knowledge	68	it 1
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	grade Agin	PERFORMANCE STANDARDS	STATES TO STATE TO THE TRAINING CONTENT
A	Descriptive:		Functional:
•	Analyzes ac	Analyzes accurately the capabilities of fire fight- ing personnel and equipment.	• The effects of various fire extinguishing agents, (1.e., water, foam, dry chemical), and types of combinatible materials and chemicals.
•	Evaluates por fire fightin type of fire	Evaluates properly the effectiveness of the various fire fighting extinguishing agents for the particular type of fire, and under the particular weather con-	How to extinguish and contain fires of standard combustible material and/or hazardous chemicals.
•	ditions. Determines extinguishir	ditions. Determines expeditiously and correctly the proper fire extinguishing agent and method for the particular	 How to evaluate the capabilities and limitations of fire fighting personnel and equipment for various types of fires, under various weather con-
氢	chemical car	chemical cargo under the particular weather condition. rical:	ditions. • How to apply the basic principles of heat transfer and smothering techniques in fire fighting.
•	In all case tinguish and	In all cases, determines the best method to ex- tinguish and contain the fire.	Specific:
			• Knowledge of vessel's fire fighting personnel and equipment.
		19.00	Knowledge of vessel's procedures for fighting
100		1000000000000000000000000000000000000	various types of fires under various weather con-
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	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	L AND ORIENT	ATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	ELOPMENT
DATA	×	PEOPLE	×	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
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			EARLESS ESS			A COLUMN TO SERVICE	EEE B'SOEBBOOK		Sind Leonard
TASK CODE:	V.B.4		GOAL: Protect	ect lite and	d property	from cargo accidents.	its.		
OLLECTIVE:	Initiat	e fire figh	ting onbo	Initiate fire fighting onboard tankship.	ď	military base	To the sets of	divesting	Technology To
rASK: Opens in the ves	selected	control val	lves and o	pens suction anual, in on	n and discl	TASK: Opens selected control valves and opens suction and discharge valves to fir in the vessel's operations and safety manual, in order to activate vessel's fir	fire pump(s), foll firemain system.	following emergen m.	emergency procedure
17.5	1.0 E (10 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3 2 3	PERFORMANCE STANDARDS	STANDARDS	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			TRAINING CONTENT	NTENT STOR OF	表に対する。 を を を を を を を を を を を を を
Descriptive: Expedition pressuri	e: tiously crize the	riptive: Expeditiously opens the control pressurize the firemain system.	ntrol valuatem.	riptive: Expeditiously opens the control valves to effectively bressurize the firemain system.	ctively	Functional: How to operat	tional: How to operate fire pump(s) using the control panel	using the con	trol panel
Prompt discha	ly and in rge valve	Promptly and in the correct sequence discharge valves and properly actival	t sequencerly sctive	Promptly and in the correct sequence opens the suction/discharge valves and properly activates fire pump.	suction/ mp.	• Understanding components of	of the principles, operations, the fire main system.	les, operationsystem.	ns, and
Numerical:						Specific:			
auffic	cases, elent time	In all cases, ensures fire pump is s sufficient time to protect the vesse	ire pump is sta	started in el.		 Knowledge of the vess the fire main system. 	Knowledge of the vessel's firemain system. Knowledge of the vessel's procedure for operating the fire main system.	iremain system cocedure for o	perating
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TASK CODE: V.B.	WORKER	B.5	AND ORIEN	TATION			GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
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DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANG
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t of fire fighting hoses and the selection/operation/positioning of hoses, fire ex-	an	
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NSK: Directs personnel in laying out of fire fighting hoses and the selection/operation/positioning of hoses, fire tinewishers, and other fire fighting equipment, using onboard communications equipment, if necessary, following	standard operating procedure in operations safety manual, and using knowledge and judgment of fire emergency situa-	tions in order to contain and extinguish life.
3 .	8	5
TASK: Directs personnel in laying out tinguishers, and other fire fighting	8	=

Initiate fire fighting onboard tankship.

OBJECTIVE:

PERFORMANCE STANDARDS	TRAINING CONTENT
Descriptive:	Functional:
. Fire hoses are promptly and properly laid out.	The effects of extinguishing agents, (1.e., water,
 Personnel and equipment are prepared expeditiously and effectively to contain and extinguish fire. 	IOSUM, dry chemicals), on various types or combustible materials and chemicals.
Maintains effective communication with fire fighting personnel.	• How to contain and extinguish fires of standard combustible materials and/or of chemical liquids.
Numerical: state Personal state and any and an account of the state of	 How to lay out and operate fire hoses in containing and extinguishing fires.
• In all cases, supervises personnel and equipment in such a manner that fire is contained and extinguished.	. How to evaluate the capabilities of fire fighting personnel and equipment under various conditions.
In all cases, contains and extinguishes fire before it causes ignition of cargo tank contents.	How to use ship communications equipment. Specific:
	 Knowledge of vessel's fire fighting personnel and equipment.
	 Knowledge of vessel's procedures for fighting fires, including chemical liquid fires.
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TASK CODE: V.B.6	V.B.6								
	WORKER	WORKER FUNCTION LEVEL AND ORIEN	AND ORIEN	ITATION		azvacw	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	×	SONIHL	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
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Initiate fire fighting onboard tankship.

OBJECTIVE:

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rotective clothing and self-contained breathing apparatus when necessary, and using	areas in order to ensure all doors, hatches, vents and other tank apertures are	
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TASK: Inspects ship spaces, using pro	judgment when entering hazardous	7
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TRAINING CONTENT	Functional:	ures, etc., are How to secure vessel and tank doors, hatches,
PERFORMANCE STANDARO	Descriptive:	Doors, hatches, vents, tank apertures, etc., are promotely closed upon learning of outbreak of filter.

from hazardous spaces.
Uses good judgment in discretionary situations.

Ensures personnel are alerted and vacated promptly

e oses good judgment in discretions

Numerical:

- All doors, hatches, vents, etc., critical to the containment of fires, are closed.
- All personnel are alerted and vacated from hazardous spaces.

openings, tank apertures, etc. How to identify and use protective clothing and self-contained breathing apparatus. How to identify and inspect hazardous spaces onboard ship in the event of fire/potential fire.

Knowledge of vessel's layout and arrangement of spaces, equipment, enclosures, etc.

Specific:

Knowledge of type and location of protective clothing and breathing apparatus onboard vessel.

	WORKER	WORKER FUNCTION LEVEL AND ORIENTATION	EL AND ORIEN	TATION			GENER	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	PEOPLE	*	THINGS	*	WORKER	REASONING	MATH	LANGUAGE
4	25	2	65	1	10	5	4	3	7
TASK CODE:	V.B.7		GOAL: Pro	Protect life an	and property	y from cargo accidents.	ents.		
OBJECTIVE:	Initi	ate fire fi	ghting onb	Initiate fire fighting onboard tankship.	ė.	to destroy and	a Tasany adr		Set opposite
TASK: shor gett	Directs personnel shoreside and vessel, getting vessel away fr	Directs personnel in the disc shoreside and vessel, following st getting vessel away from terminal.	n the disc ilowing st terminal.	Directs personnel in the disconnection of side and vessel, following standard operating vessel away from terminal.	cargo li	I in the disconnection of cargo lines and vapor lines from the shoreside lines between following standard operating procedure in vessel's operations manual, in order to prepare for com terminal.	s from the sho operations man	reside lines bu	etween to prepare for
		PERFORMAN	PERFORMANCE STANDARDS				TRAINING CONTENT	CONTENT	
Descriptive: Lines ar	itve:	riptive: Lines are disconnected promptly and	romptly an	d carefully.		Functional: How to disc	onnect cargo a	tional: How to disconnect cargo and vapor lines from shoreside.	from shoresi
• Direct • Cargo cargo proced	Directs person Cargo lines an cargo and vap procedure.	Directs personnel clearly and effectively. Cargo lines and vapor return lines are fre cargo and vapor prior to commencing the diprocedure.	y and efferturn lines commencin	Directs personnel clearly and effectively. Cargo lines and vapor return lines are free of cargo and vapor prior to commencing the disconnect procedure.	mect	• How to direct lines. Specific: • Knowledge of	personnel:	assist cargo tr	in disconnecting
Numerical:	<u>11</u> :					• Knowledge o	Knowledge of the vessel's procedure		for disconnecting
• Conn	All cargo linconnected.	All cargo lines and vapor return lines are connected.	r return 1	ines are dis-		cargo lines	cargo lines and vapor return lines.		
						100 100 100 00 00 00 00 00 00 00 00 00 0			

	WORKER	WORKER FUNCTION LEVEL AND ORIE	L AND ORIEN	NTATION		WORKER	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
DATA	×	374034	×	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
4	65	44	25	1A	10	5	5	7	7

TASK CODE: V.B.8		60Al: Protect life and property.
OBJECTIVE:	Initiate fire fi	Initiate fire fighting onboard tankship.
TASK: Inspection following methods t	FASK: Inspects visually the damage area following standard procedure and usin methods to minimize the adverse effect	NSK: Inspects visually the damage area resulting from fire, consulting with engineering personnel, when necessary, following standard procedure and using own judgment in order to determine the extent of structural damage and recommend methods to minimize the adverse effects of casualty.

Effectively consults with appropriate engineering personnel to evaluate the extent of structural damage to vessel and how to facilitate repairs. In all cases, standard procedures are followed. In all cases, standard procedures are followed. In all cases, standard procedure are followed. In all cases, standard procedure for determining the structural damage. In all cases, standard procedure for determining the structural damage. In all cases, standard procedure for determining the extent of structural damage. In all cases, standard procedure for determining the extent of structural damage. In all cases, standard procedure for determining the extent of structural damage. In all cases, standard procedure for determining the extent of structural damage. In all cases, standard procedure for determining the extent of structural damage. In all cases, standard procedure for determining the standard procedure for determining the extent of structural damage. In all cases, standard procedure for determining the extent of structural damage. In all cases, standard procedure for determining the extent of structural damage.	Funce of structural structural structural structural structural structural structural sessel and how to facilitate repairs.	the structural adequacy of a ressel's hull has sustained damage. the principles of ship structure. andard procedures relating to tank el's structural design and
ly consults with appropriate engineering to evaluate the extent of structural vessel and how to facilitate repairs. Spec	y determines the extent of structural ly consults with appropriate engineering to evaluate the extent of structural vessel and how to facilitate repairs. Spec	the structural adequacy of a ressel's hull has sustained damage. the principles of ship structure. andard procedures relating to tank el's structural design and
ly consults with appropriate engineering to evaluate the extent of structural vessel and how to facilitate repairs. Spec ses, standard procedures are followed.	ly consults with appropriate engineering to evaluate the extent of structural vessel and how to facilitate repairs. Spec	the principles of ship structure. andard procedures relating to tank
Spec.	Spec Standard procedures are followed.	el's structural design and
• Knowledge of the vessel's procedure for determining the extent of structural damage.	•	
	• Knowledge of the vess the extent of structul	vessel's procedure for determining uctural damage.
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TASK CODE: V.C.1	V.C.1									200
	WORKER	WORKER FUNCTION LEVEL AND ORIENT	AND ORIEN	ITATION		BENEUM	GENERAI	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT	
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	нтам	LANGUAGE	
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DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAG
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TASK CODE: V.C.	V.C.1		GOAL: Pro	tect life and	d property	Protect life and property from cargo accidents.	its.	COLOR SEC SOTION	631 005-03-1

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pin	, Wa	scial medical kit for doctor's use, in order to treat victim.	
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TASK: Provides first aid to victim exposed to chemical liquid cargo, following standard operating procedure, moves	victim from accident scene, removes contaminated clothing, washes spill from skin with gentle flow of water, calls	for medical attention, readies spec	
root	fro	dica.	
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Administer first aid.

OBJECTIVE:

PERFORMANCE STANDARDS	A STATE OF S
Descriptive:	Functional:
 Provides treatment for victim exposed to a chemical liquid cargo in a careful, expeditious, and proper manner. 	• General knowledge of procedures for treatment of persons exposed to hazardous chemicals gained by attending simulation drills/training.
• Calls for medical attention (doctor's assistance)	• How to treat individuals exposed to chemical liquids.
promptly, when required.	How to obtain medical assistance.
Numerical:	How to read and follow medical instructions.
Medical attention (doctor's assistance) is called for in all cases where required.	General knowledge of contents of First Aid Manual, International Medical Guide for Ships, Medical First Aid Guide for use in accidents involving dangerous goods
· 一、一、一、一、一、一、一、一、一、一、一、一、一、一、一、一、一、一、一、	Specific:
STATE OF THE PARTY	• Knowledge of location of special medical kit (contain- ing particular antidotes).
	• Knowledge of contents of specific medical instructions
26 30 10 10 10	individuals exposed to acetone cyanohydrin, acetoni-
	trile, acrylonitrile, and ethylene cyanohydrin breaks amyl nitrate pearl in cloth and holds it under
MARKET STREET WAS TRAFFIC AND STREET HAD STREET	nose of victim, allows victim to inhale vapors at rate specified in instructions).

TASK CODE: V.C.2	V.C.2						THE YES RESERVED		
	WORKER	WORKER FUNCTION LEVEL AND ORIEN	AND ORIEN	TATION		MODECO	TWEET CENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOFMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
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TASK CODE: V.C.2	V.C.2	GOAL:	Prot	t 11fe	d pus	roperty	from (sargo	ect life and property from cargo accidents.	ts.	A STATE OF THE STA	10000	25.00.00	STATE OF STREET	9
OBJECTIVE:	Administration of the second														

Administer first aid.

TASK: Provides first aid to unconscious victim by administering mouth-to-mouth resuscitation, following standard operating procedure in first aid manual, and using own judgment as to whether victim should be moved, in order to administer artificial respiration by means of mouth-to-mouth resuscitation.

PERFORMANCE STANDARDS	A TOTAL OF THESE SHOP TRAINING CONTENT C THE SHAPE CHE TENNERS
Descriptive: • Exercises good judgment as to whether victim should be moved.	Functional: • General knowledge of artificial respiration procedures sained by attending simulation drills and training.
Moves injured person carefully.	How to prepare a victim for artificial respiration.
• Forces air into victim's mouth properly and gently.	How to administer artificial respiration by mouth-to-
Numerical:	How to read and follow first aid procedures.
 Performs artificial respiration gently and at proper rate in accordance with standard operating procedures. 	8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
And a regard of the through the section of the sect	Goods. Specific:
swar cone: A 'C'3	• Knowledge of specific procedures on mouth-to-mouth resuscitation (1.e., moves injured person carefully,
20 1 00 1 00 1 00 1 N	removes foreign matter from mouth, pulls victim's head back, extending neck, holds lower jar upward,
200.00	proper rate).
WORKER OF THE WASHINGTON	SECTION OF THE PROPERTY OF THE

TASK CODE:	V.C.3	.C.3	TAND ORIENT	ATION			GENERAL	GENERAL FOUCATIONAL DEVELOPMENT	VELOPMENT
DATA	*	PEOPLE	*	THINGS	*	WORKER	REASONING	MATH	LANGUAGE
4	20	74	02	14	10	3	4	2	4
TASK CODE:	V.C.3		60AL: Protect		property	life and property from cargo accidents.	ıts.		
OBJECTIVE:	Admini	Administer first aid.	aid.	ø					
TASK: Pro aid instr heat, pos	vides fir uctions, ition and	st aid to described and stimulants	conscious via to suita	ASK: Provides first aid to conscious victim suffering from shock, aid instructions, moves victim to suitable surroundings away from cheat, position and stimulants using available first aid equipment,	ring from dings awar		following standard operating procedure and first cause of shock, protects victim by supplying in order to treat conscious victim.	ng procedure ctim by suppl s victim.	and first lying
		PERFORMANC	PERFORMANCE STANDARDS			e so produces o	TRAINING CONTENT	NTENT	
Descriptive:	ve:	\$50 \$3 c.	author boss a	198		Punctional:			
Treat and p	Treats victim for and proper manner.	for shock iner.	n a carefu	Treats victim for shock in a careful, expeditious and proper manner.	•no	General know shock gained training.	General knowledge of procedures for treatment of shock gained by attending simulation drills and training.	ures for treatmulation dri	stment of
Numerical:		SEPTEMBER 1	Series No.			How to treat How to read	to treat a victim suffering from shock. to read and follow standard operating p	ring from she dard operacin	from shock. operacing procedures
sciou Stimu prope	scious person drink. Stimulants are given proper rates in accomprocedures.	person drink. Ints are given in proper quantrates in accordance with stancines.	roper quante vie with sta	acious person drink. Stimulants are given in proper quantities and at proper rates in accordance with standard operating procedures.	at ting	e General know Internationa Aid Guide fo Goods.	and first aid instructions. General knowledge of contents of First Aid Manual, International Medical Guide for Ships, Medical First Aid Guide for Use in Accidents Involving Dangerous Goods.	ts of First ! for Ships, P nts Involving	Aid Manual, Medical First & Dangerous
	Selection of					Specific:	ific:	1000	
2000		. 46 				lants (1.e., wraps victim hot water bo	lants (i.e., removes wet clothing and drys victim, wraps victim in blankets, applies external heat using hot water bottles, heating pads to various areas	othing and dr pplies extern pads to vario	rys victim, nel heat using ous areas
15	9					(feet, thigh help blood f person stimu	(feet, thighs, abdomen), places body so gravity will help blood flow to brain and heart, gives conscious person stimulants (aromatic spirits of ammonia, coffee,	d heart, give spirits of	gives conscious of ammonia, coffe
• Knowl	edge of a	Knowledge of specific standard a tions on the treatment of shock.	andard and shock.	Knowledge of specific standard and first aid instructions on the treatment of shock.	nstruc-	• Knowledge of (blankets, hetc.).	Knowledge of location of vessel's first aid equipment (blankets, hot water bottles, heating pads, stimulants,	ssel's first s, heating pa	aid equipment

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TASK CODE:	V.D.1						Story Administration	see as actor	Secretary Section
	WORKER	WORKER FUNCTION LEVEL AND ORIENT	EL AND ORIER	TATION	100000	BENEUM	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	EVELOPMENT
DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE
2	25	2	70	14	2	ddr (doed) bodd gin€	e chestolis pro	Tack Social	Transfer of
TASK CODE:	V.D.1		GOAL: Pro	tect life an	d property	Protect life and property from cargo accidents.	nts.society and	Tothing to	\$0.000 PER \$1.000 PER
OLLECTIVE:	Report	t hazardous	chemical	Report hazardous chemical cargo accident.	nt.	railling 4	English 52 Nord To	detect tage t	
TASK: Reports verbally liquid cargo being traities of an accident.	rts verb	ally by teld g transporte	ephone or	radio an inc ing standard	ident that operating	IASK: Reports verbally by telephone or radio an incident that occurred onboard the vessel as a result of the chemical liquid cargo being transported, following standard operating procedure, in order to immediately notify proper authorities of an accident.	the vessel as a der to immediate.	result of the state of the stat	he chemical oper author-
		PERFORMAN	PERFORMANCE STANDARDS	28		8 (4.0)	TRAINING CONTENT	NTENT	CTOR BEST OFF
Descriptive: Informat Verbal t	we: mation to 1 transmi	riptive: Information transmitted is accurate and c Verbal transmission is clear and concise.	is accurat	te and complete.	ite.	Functional: • How to delive Specific:	tional: How to deliver information to proper authorities.	to proper au	thorities.
Numerical:		(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	PHILE SERVICE			• Knowledge of	Knowledge of proper authorities.	ties.	
e the	In all cases of the hazardo an immediate authorities.	In all cases where the incident is of the hazardous chemical cargo bean immediate verbal report is made authorities.	ncident is I cargo be rt is made	In all cases where the incident is a direct result of the hazardous chemical cargo being transported an immediate verbal report is made to proper authorities.	sult	Knowledge of at Knowledge of ac Knowledge of ha	Knowledge of standard operating procedures. Knowledge of accident aboard vessel. Knowledge of hazardous properties of specific chemical cargo.	ting procedu d vessel. erties of sp	res. ecific
ASSESSION									
						The state of the state of	.01070		

NS REASONING MATH		WORKER	ORKER FUNCTION LEVEL AND ORIENTATIO	L AND ORIEN	TATION		03/48/07	GENERAL	GENERAL EDUCATIONAL DEVELOPMENT	VELOPMENT
	DATA	*	PEOPLE	*	THINGS	*	INSTRUCTIONS	REASONING	MATH	LANGUAGE

GOAL: Protect life and property from cargo accidents.	
om cargo a	
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otect 11f	
GOAL: Pr	
V.D.2	
TASK CODE: V.D.2 GOAL: Protect life and property from cargo accidents.	

Report hazardous chemical cargo accident.

ORJECTIVE:

amines scene of accident, writes down relevant data on standard form, following standard operating procedure, in order Ask: Investigates (examines, evaluates, asks questions of witnesses, listens to and evaluates responses, visually ex-Investigates (examines, evaluates) accidents, gathers information about an incident aboard vessel which may be to prepare written report to proper authorities.

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Functional:

Descriptive: Information is relevant, complete, and accurate.

Analysis is perceptive, accurate, and thorough.

Numerical:

- Completes and sends report within specified time frame of standard operating procedure.
- Less than XX complaints regarding inadequate or insufficient information.

Specific: • Knowledge of specific operating procedure.

and principles affecting transport of chemical liquid

How to elicit information from people.

cargo.

How to evaluate information in relation to criteria

. How to identify, classify, and compile specific in-

formation from a mass of data.

How to investigate a chemical cargo accident.

- Knowledge of report forms which require calculations in decimals.
- Knowledge of accident location, people involved, hazardous properties of specific chemical cargo.
- Knowledge of proper authorities.